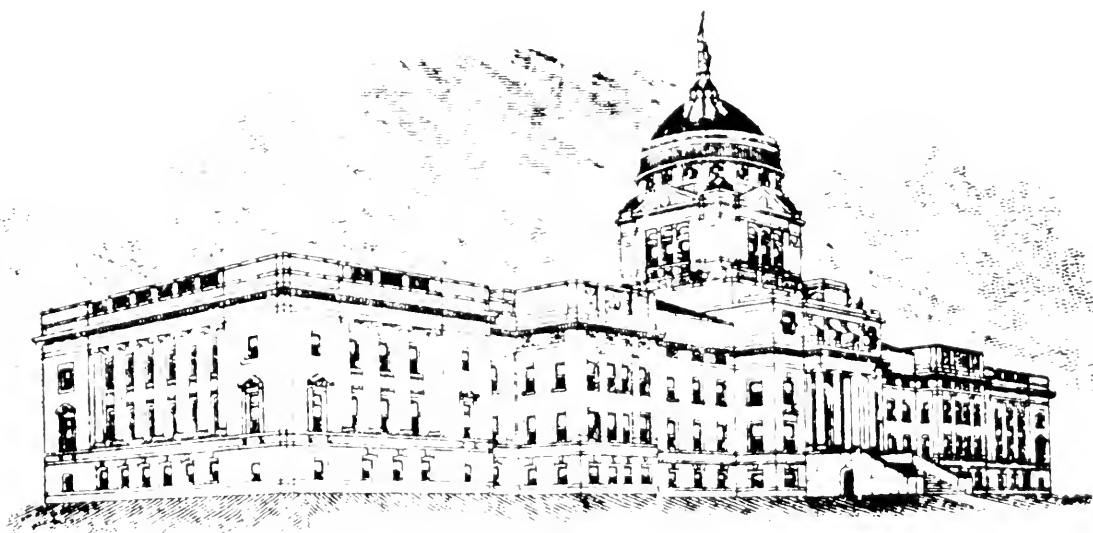


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1976



# *State of Montana*



1976

*Salary Survey*





STATE OF MONTANA  
DEPARTMENT OF ADMINISTRATION

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THOMAS L. JUDGE, Governor

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January 28, 1977

The Honorable Thomas L. Judge  
Governor of Montana  
State Capitol  
Helena, Montana 59601

Dear Governor Judge:

It is with great pleasure that I present you with this 1976 Montana Wage and Fringe Benefit Survey conducted by the Personnel Division. This report was prepared in compliance with Title 59, Chapter 9, R.C.M. 1947, which provides that the department shall continually maintain the State Classification Plan. A critical element in the maintenance of the plan is to assure that State employees are compensated fairly and equitably for the services rendered.

The attached report explains the methodology, findings, and recommendations of the department for modifying the classified employees' compensation plan. We believe the information included in this report will greatly assist you, your staff, and the Legislature, as the many questions relative to employee compensation and benefits are addressed.

We wish to express our thanks for the cooperation and assistance received from the many employers and officials who provided information that made this study possible.

Sincerely,

*Jack C. Crosser*  
Jack C. Crosser  
Director

JCC:bc  
Enclosure



STATE OF MONTANA  
1976  
SALARY SURVEY REPORT

Prepared by:  
Department of Administration  
Personnel Division



## TABLE OF CONTENTS

Figures Presented -----	ii
Introduction -----	1
Summary of Salary and Fringe Benefit Recommendations -----	1
Methodology -----	3
Survey Findings:	
In-State Survey -----	5
Regional Survey -----	11
National Survey -----	17
Fringe Benefit Survey -----	23
Conclusion -----	33
Supporting Data:*	
In-State Salary Survey Data -----	34
Regional Salary Survey Data -----	36
National Salary Survey Data -----	39
In-State Survey Key Class Descriptions -----	41
Regional Survey Key Class Descriptions -----	47
Appendix A - Consultant's Report -----	65

\* National Survey Key Class Descriptions are not provided because three different sets of descriptions were used (see National Salary Survey Data narrative on page 39 for explanation).

## FIGURES PRESENTED

### Figure I

In-State Salary Survey 1974 and 1976 Data Compared  
to Montana's 1974 and 1976 Minimum Salary Curve ----- 7

### Figure II

In-State Salary Survey 1974 and 1976 Data Compared  
to Montana's 1974 and 1976 Maximum Salary Curve ----- 9

### Figure III

Regional Salary Survey 1974 and 1976 Data Compared  
to Montana's 1974 and 1976 Minimum Salary Curve ----- 13

### Figure IV

Regional Salary Survey 1974 and 1976 Data Compared  
to Montana's 1974 and 1976 Maximum Salary Curve ----- 15

### Figure V

National Salary Survey Minimum and Maximum  
Data Compared to Montana's Salary Range ----- 19

### Figure VI

Composite Graph of In-State, Regional, & National  
Salary Data Compared to Montana's 1976 Minimum and  
Maximum Salary Curves ----- 21

### Figure VII

Comparison of Regional Paid Vacation Leave Allowance ----- 24

### Figure VIII

Comparison of Regional Paid Sick Leave Allowance ----- 25

### Figure IX

Comparison of Regional Paid Holidays per Year ----- 26

### Figure X

Comparison of Regional Paid Emergency Leave Allowance ----- 27

### Figure XI

Comparison of Regional Pay Rates for Holidays and Overtime ----- 28



## FIGURES PRESENTED (continued)

### Figure XII

Comparison of Regional Employer's Monthly Contribution for Retirement -----	29
--	----

### Figure XIII

Comparison of Regional Employer's Monthly Contribution for Health and Life Insurance -----	30
Notes on Life Insurance Coverage -----	31

All figures and tables presented in this report with the exception of those in the Consultant's Report were prepared by Personnel Division staff.



## INTRODUCTION

This report presents a summary analysis of the salary and fringe benefit data for the State of Montana's 1976 Salary Survey. This report also presents some comparisons to the 1974 Salary Survey conducted by the State and the 1974 pay plan which was developed from the 1974 salary survey. The findings are presented narratively, in graphs, and in tables.

The reason for conducting the 1976 Salary Survey was to determine whether the State compensates employees competitively with other employers in its recruitment area. In short, to determine if the State has the ability to "attract and retain" employees. To do this, a variety of jobs found in State employment were surveyed.

The Personnel Division wishes to thank the firms and governmental units which graciously participated in this survey with the presentation of an issue of this report. We hope the analysis presented in this report proves suitable for their use.

## SUMMARY OF SALARY AND FRINGE BENEFIT RECOMMENDATIONS

The Personnel Division finds that State employees are compensated competitively at this point in time (fiscal year 1977). However, the cost of living is expected to rise each year in the coming biennium, therefore the Personnel Division recommends an across the board cost of living adjustment in order to remain competitive.

The Personnel Division also finds that the fringe benefits offered employees by the State are competitive, except for the State's contributions for Retirement and for Health and Life Insurance. To place the State in a competitive position in the labor market, the Personnel Division recommends increasing the State's contribution to both the retirement and health and life insurance fringe benefits.



## METHODOLOGY

The 1976 Salary Survey was conducted by the State Personnel Division to obtain information on key classes which are used in the State of Montana Statewide Classification and Pay Plans. All key classes used were chosen by the Personnel Division. Key classes normally are identified because they are: 1) comparable across jurisdictions, that is, they are common; 2) relatively large numbers of people are employed in what is considered the same kind of job; 3) the State of Montana (hereinafter referred to as State) class description would fit both state government and private sector and local governmental unit jobs; and 4) they represent a new area or problem area of employment. These four factors may be used in combinations or individually.

The salary survey consisted of three parts: an in-state, regional and national survey, the key classes having been categorized by their probable recruitment area, and assigned to one of the surveys. The data for each part are presented narratively, in graphs and in tables.

The in-state survey solicited salary information for 36 key classes from 145 sampling units which were chosen by the consultants (see Appendix A for methodology). The sampling units included a variety of firms from the private sector and 12 county and 12 city governments.

The regional survey solicited salary data for 63 key classes from eight states chosen by the Personnel Division in the northwest region. The survey states were: Colorado, Idaho, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

The national survey obtained salary data for 25 key classes from three published national salary surveys of state governments. The three national surveys used were: Edward N. Hay & Associates, "1977 Salary Survey of State Governments;" the U.S. Civil Service Commission "State Salary Survey (1976);" and the International Personnel Management Association "Pay Rates in the Public Service (1976)."

The data presented in this report have been compiled within the context of the Montana Pay Plan's twenty-five grade levels. To do this, the key classes used in each of the surveys were categorized by the state government's grade levels. Then the survey data for the key classes in each grade level were averaged together so that one salary range figure was generated for each grade level. These figures were then compared to the state government's salary range (the minimum and maximum salary for each grade level).

In addition to a simple comparison of the State's salary range to the averaged survey data per grade level, the percentage difference was also calculated. If the percentage difference was 6% or less, then the compensation for a grade level was considered appropriate. This mathematical operation has been termed the "6% criterion."

Following is the rationale for assuming compensation for a grade level to be correct if the 6% criterion was met. The percentage difference in compensation between the State's grade levels equals approximately 9%. Since the survey produced data which ranged above and below the State's compensation rate,

it was assumed that if the data was within 6% (that is, two-thirds of the 9% between grade levels) then the grade level for the key classes surveyed and the compensation for the grade level were appropriate.

Fringe benefit data was obtained as well as salary data, from the in-state and regional survey participants. This information was compiled in graphs and tables. The in-state fringe benefit data was summarized in tabular format by the consultants (see Appendix A for tables).

Fringe benefit data on a national scale was not solicited by the survey agents. For this reason, fringe benefit data on a national scale has not been included in this report.

## SURVEY FINDINGS

### The In-State Survey

Figures I and II graphically present the survey data from both the 1974 and 1976 salary surveys and the January 1, 1975, and July 1, 1976, State salary curves. The State's salary curve increased by approximately 8.5% from 1974 to 1976. By comparison, as indicated in Figures I and II, the salaries paid by employers in the private sector and local governmental units increased at a more rapid rate, an approximate average of 18% at minimum and 20% at maximum rates (these figures should not be taken to be completely comparable to the State's increase primarily for two reasons: 1) the State's 8.5% increase was uniform for all grade levels but the private sector and local governmental units' figures are averages and actually fluctuate a great deal from one grade level to another; and 2) some of the key classes surveyed in 1974 were also surveyed in 1976, however, some of the grade levels for these key classes had changed between 1974 and 1976 and consequently, the data was not comparable for some grade levels.)

The following tables show a comparison of the combined salary data per grade level (key classes in grades 3 through 13 were surveyed, since they would normally be recruited in-state) to the State's minimum and maximum salary for each grade level. Also, the tables indicate the grade levels which met the 6% criterion (as explained in the Methodology section).

#### MINIMUM (STEP 1) SALARIES

State Government  
Minimum Salaries  
LOWER  
Than Survey Data  
for Grades:

3\*      10  
4\*      11  
7\*      12\*  
9\*

State Government  
Minimum Salaries  
HIGHER  
Than Survey Data  
for Grades:

5\*  
6  
8\*  
13\*

#### MAXIMUM (STEP 13) SALARIES

State Government  
Maximum Salaries  
LOWER  
Than Survey Data  
for Grades:

3\*  
4  
12\*

State Government  
Maximum Salaries  
HIGHER  
Than Survey Data  
for Grades:

5    9\*  
6\* 10\*  
7    11\*  
8\* 13\*

\* An asterisk (\*) adjacent to a grade level number indicates the averaged survey salary data met the 6% criterion (discussed in Methodology section).

As can be seen from the two tables above, the data for most grade levels met the 6% criterion and therefore are considered to be compensated appropriately. It must be understood that this conclusion means the key classes surveyed which made up a grade level are properly compensated; however, there are individual key classes that did not meet the 6% criterion and this may explain why some grade levels did not meet the 6% criterion.

It should be noted that grades 10 and 11 consisted of an inordinate number of craft and trade key classes. The significance of this fact is twofold. First, salary data for the craft and trade key classes was a mixture of non-union and union scale salaries. Second, the State pays essentially the same craft and trade key classes at two different grade levels depending on whether the individual in one of the key classes is a member of a collective bargaining unit (union); for example, the Carpenter key class is grade 11 for non-union, and grade 12 for union, and the Electrician key class is grade 11 for non-union, but grade 13 for union. This apparent discrepancy is caused by the application of two laws which affect classification and pay. One is the Classification and Pay Act (Title 59, Chapter 9, R.C.M. 1947), the other the Collective Bargaining Act (Title 59, Chapter 16, R.C.M. 1947). Even though the Classification and Pay Act mandates "similar pay for similar work," it also provides for negotiation of anything relevant to the determination of classification and grade level, and the Collective Bargaining Act provides for negotiation of agreements. As a consequence, the nature of union craft and trade key classes has been made different through negotiations than non-union craft and trade key classes.

Because of these two factors, the survey data for craft and trade key classes in grades 10 and 11 cannot be considered valid, since there is no separation of union/non-union salary data, nor is there any common grade level to which the mixed salary data could be compared.



FIGURE I

In-State Salary Survey 1974 and 1976 Compared to Montana's 1974 and 1976 Minimum Salary Curve

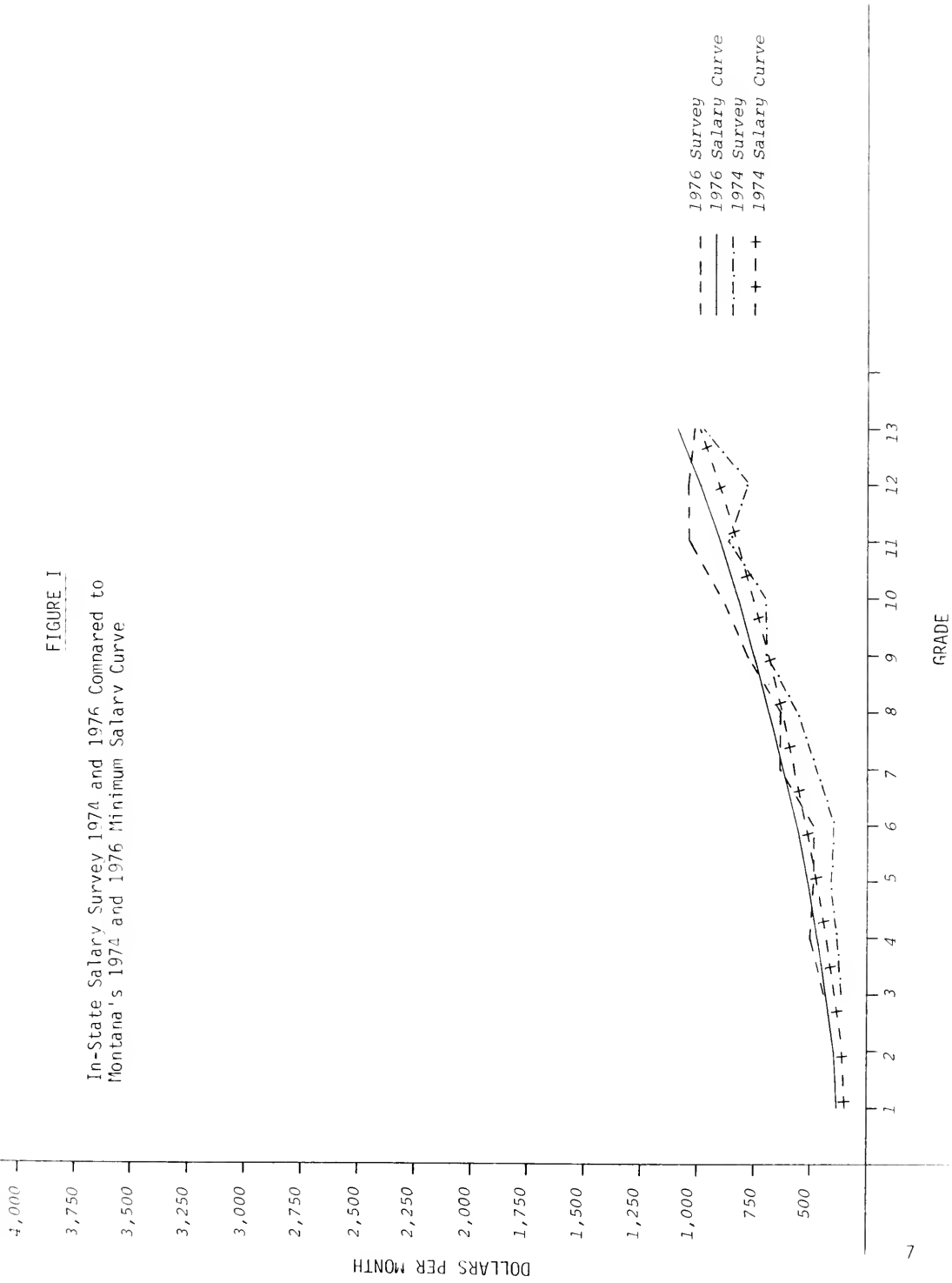
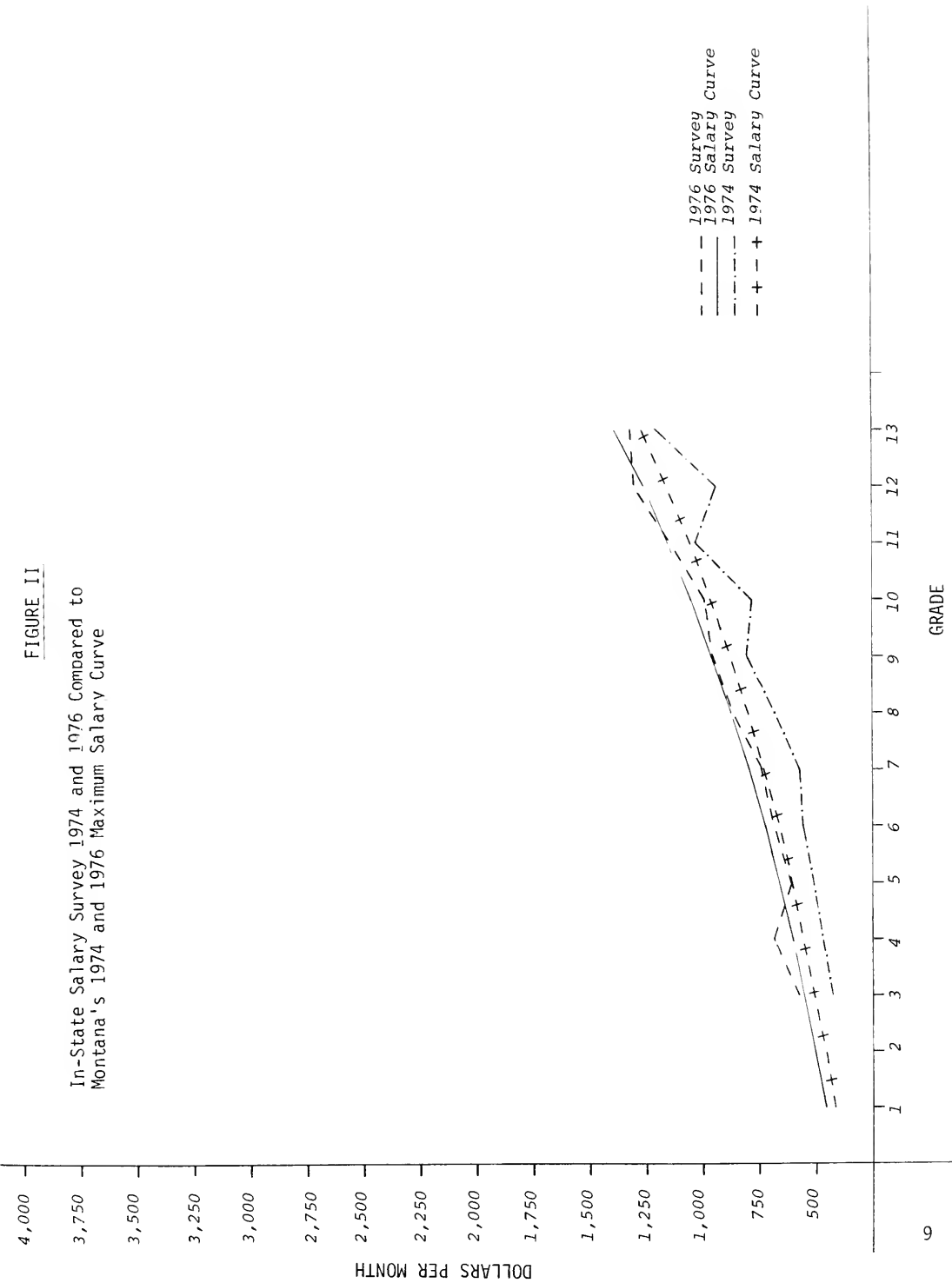




FIGURE II

In-State Salary Survey 1974 and 1976 Compared to  
Montana's 1974 and 1976 Maximum Salary Curve





## The Regional Survey

Figures III and IV graphically present the survey data from both the 1974 and 1976 salary surveys, and the fiscal year 1974-75 and fiscal year 1976-77 State salary curves. The State's salary curve increased by approximately 8.5% from 1974 to 1976. By comparison, as indicated in Figures III and IV, the salaries paid by the states in the Northwest region increased at a more rapid rate - an approximate average of 18% at minimum and 17% at maximum salary rates (as with the in-state survey, these figures should not be taken as completely comparable to the State's increase, primarily for two reasons: 1) the State's 8.5% increase was uniform for all grade levels, but the regional percentage increases are averages and actually fluctuate a great deal from one grade level to another; and 2) some of the key classes surveyed in 1974 were also surveyed in 1976; however, some of the grade levels for these key classes had changed between 1974 and 1976; consequently, the data were not comparable for some grade levels).

The following tables show a comparison of the combined salary data per grade level (key classes in grades 8 through 25 were surveyed since they would normally be recruited regionally) to the State's minimum and maximum salary rate for each grade level. The tables also indicate the grade levels which met the 6% criterion (as explained in the Methodology section).

### MINIMUM (STEP 1) SALARIES

State Government  
Minimum Salaries  
LOWER

Than Survey Data  
for Grades:

9\*  
18\*  
19

State Government  
Minimum Salaries  
HIGHER

Than Survey Data  
for Grades:

8 13\* 17 23  
10 14\* 20 24  
11\* 15\* 21\* 25  
12 16 22

### MAXIMUM (STEP 13) SALARIES

State Government  
Maximum Salaries  
LOWER

Than Salary Data  
for Grades:

9 15\* 19 23\*  
12\* 16\* 20\* 24  
13\* 17\* 21 25\*  
14\* 18 22

State Government  
Maximum Salaries  
HIGHER

Than Salary Data  
for Grades:

8\*  
10  
11\*

\* An asterisk (\*) adjacent to a grade level number indicates the averaged survey salary data met the 6% criterion (discussed in Methodology section).

Reviewing the two tables above, the State's minimum salaries are generally higher than the region; although about one-third of the grade levels met the 6% criterion, the remaining two-thirds did not. As for maximum salaries, the State generally compensates lower than the region, although approximately two-thirds of the grade levels met the 6% criterion.

In general, the State compensates higher at entry and lower at maximum. This indicates that the State compensates appropriately, since the State's pay rates were generally within the regional salary ranges and most are within 6% of the regional salaries. Again, as with the in-state survey, it must be understood that this conclusion means the key classes surveyed which made up a grade level are properly compensated; however, there are individual key classes that did not meet the 6% criterion, which may explain why some grade levels did not meet the 6% criterion, and indicates some key classes may need to be reviewed.

It should be noted that maximum salaries paid by the State may be artificially lower than the survey maximum salaries. This is due to the State's policy of limiting monthly salary ranges for grades 13 through 25 to \$300, that is, the difference between a step 1 and step 13 in monthly salaries for grades 13 through 25 is \$300. If maximum salaries are artificially low, then the conclusion that the State compensates appropriately may be invalid, since removal of the \$300 limit would, undoubtedly, raise maximum salaries and consequently show the State compensating higher at maximum, as well as minimum, salaries.

Even though the \$300 limit has undoubtedly kept the State from advancing salaries for grades 13 through 25 ahead of survey participants, it has created a problem as well. The problem is that as percentage increases are added to the salary plan, the difference between minimum and maximum salaries for grades 1 through 12 will increase, that is, the salary range will widen with each percentage increase to salary, whereas the same will not occur for grades 13 through 25 because of the \$300 limit. (The percentage difference between minimum salaries for grades 1 through 25 will, of course, remain consistent since all percentage increases will be applied to all grades' minimum salaries.) This problem will become increasingly evident in those grades closest to the transition point from percentage increase to \$300 maximum increase, particularly grades 12 and 13, since they are at the transition point. Eventually, the result will be that the maximum salary for grade 12 will approach and possibly surpass the maximum salary for grade 13 (given sufficient percentage increases).

The only complete solution to this problem, short of totally revising the pay plan, would be to abandon the \$300 limit provision and allow the percentage difference between minimum and maximum salaries for grades 13 through 25 to equalize with the percentage difference between minimum and maximum salaries for grades 1 through 12. However, the results of the salary survey do not warrant implementing this solution, since the salary survey indicates that State salaries are appropriate with the \$300 limit.

There are two alternative solutions available, albeit partial solutions. One is to retain the initial \$300 limit and add percentage increases to it as they occur. The add-on percentage does not necessarily have to be equal to percentage increases for grades 1 through 12. The other alternative is to periodically raise the monetary limit, that is, raise the \$300 limit to \$400, \$500 or whatever amount is deemed equitable and competitive.

FIGURE III  
Regional Salary Survey 1974 and 1976 Compared to  
Montana's 1974 and 1976 Minimum Salary Curve

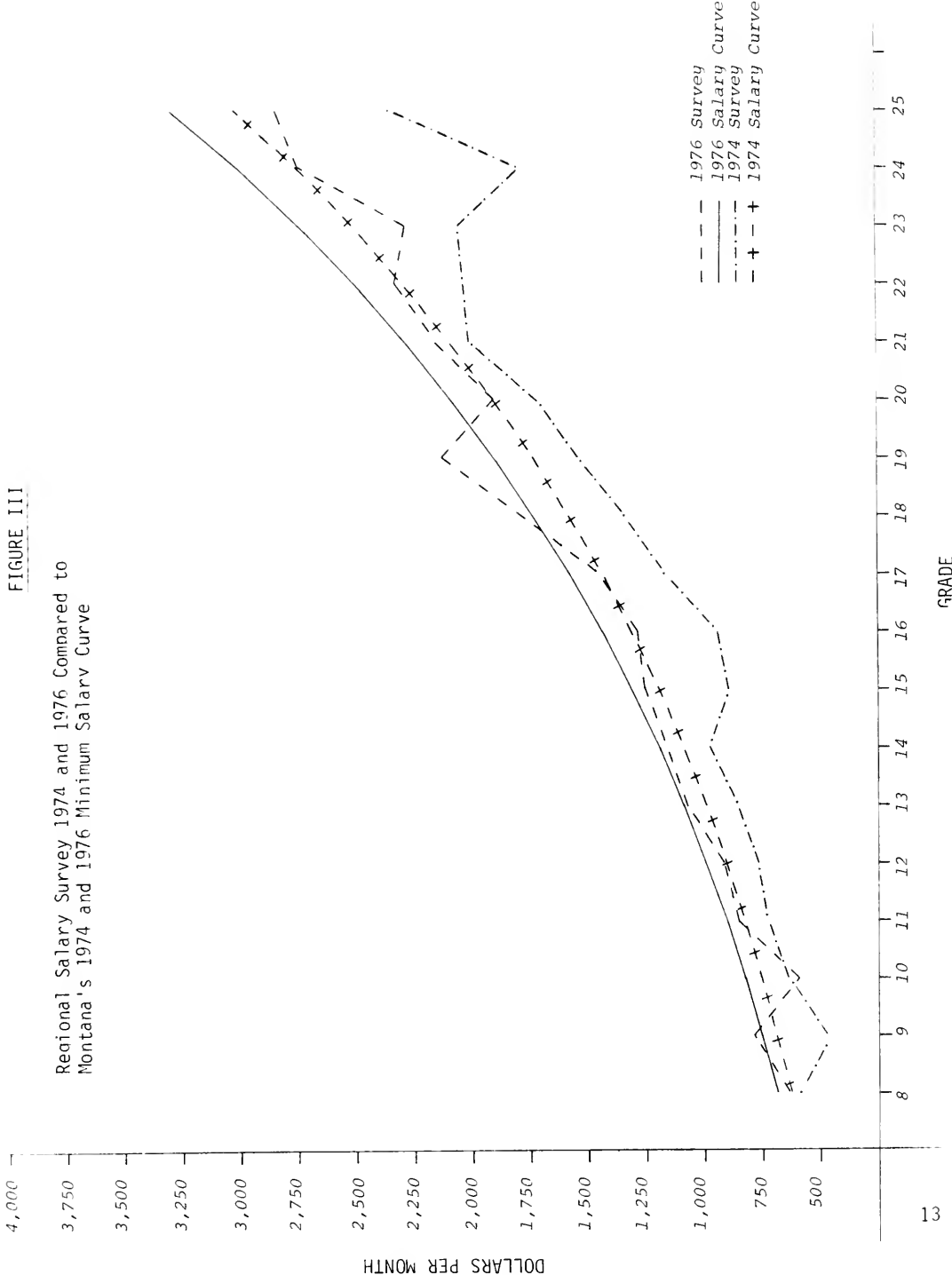
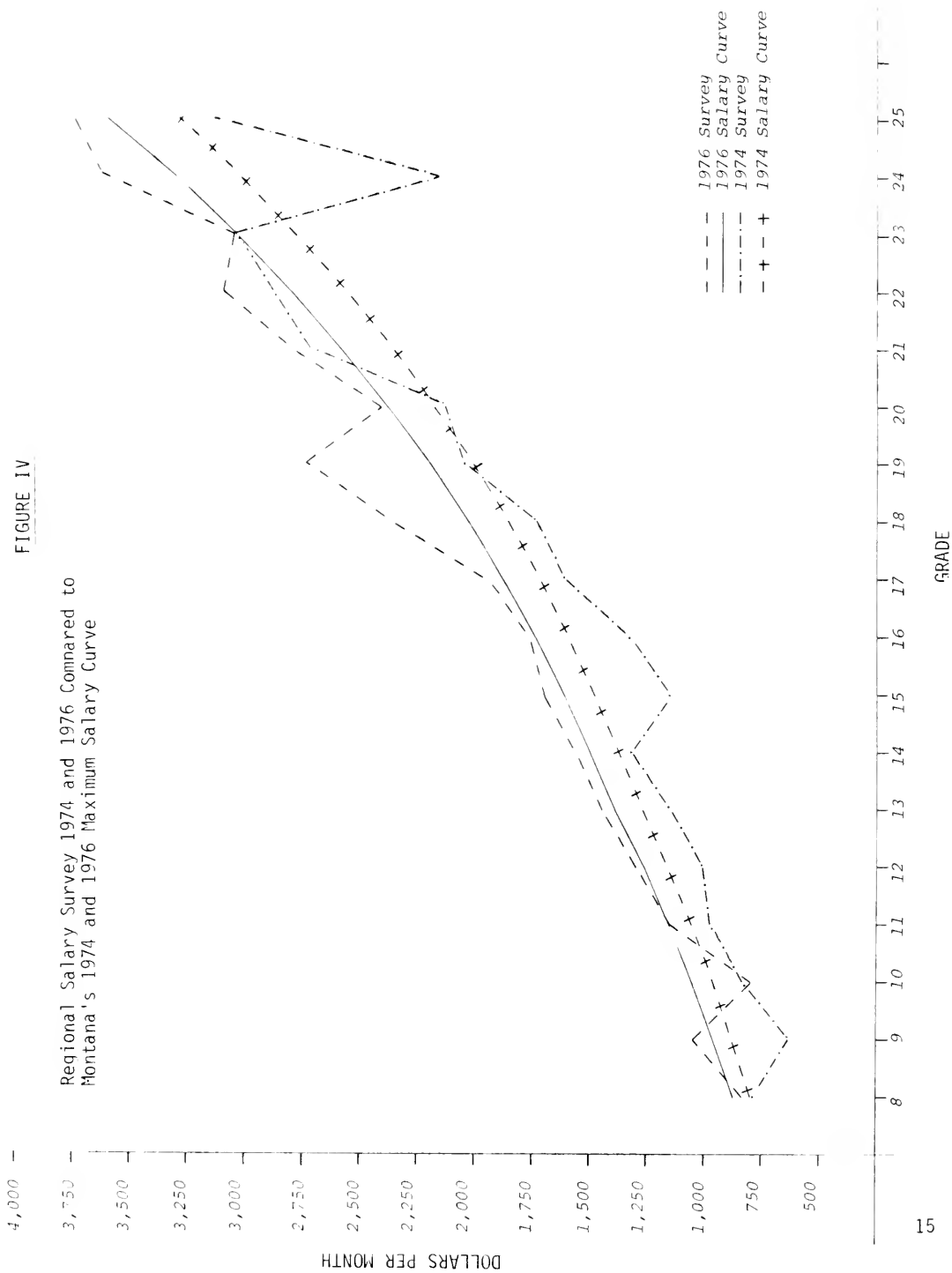






FIGURE IV

Regional Salary Survey 1974 and 1976 Compared to Montana's 1974 and 1976 Maximum Salary Curve





## The National Survey

Figure V graphically presents the survey data from the 1976 salary survey for both minimum and maximum salaries, and the fiscal year 1976-77 minimum and maximum State salary curves. There is no comparison to 1974 data since the 1974 survey did not survey a sufficient number of key classes or grade levels to permit valid comparison.

The following tables show a comparison of the combined salary data per grade level (key classes in grades 11 through 25 were surveyed, since they would normally be recruited nationally) to the State's minimum and maximum salary rate for each grade level. The tables also indicate the grade levels which met the 6% criterion (as discussed in the Methodology section).

### MINIMUM (STEP 1) SALARIES

State Government  
Minimum Salaries  
LOWER

Than Survey Data  
for Grades:

14*	19*
17	24*
18	

State Government  
Minimum Salaries  
HIGHER

Than Survey Data  
for Grades:

11*	16*	23
12	20	25
13*	21	
15*	22*	

### MAXIMUM (STEP 13) SALARIES

State Government  
Maximum Salaries  
LOWER

Than Survey Data  
for Grades:

14	18	23*
15*	19	24
16*	20*	
17	22	

State Government  
Maximum Salaries  
HIGHER

Than Survey Data  
for Grades:

11*	21
12	25*
13*	

\* An asterisk (\*) adjacent to a grade level number indicates the averaged survey salary data met the 6% criterion (discussed in Methodology section).

Reviewing the two tables above, the pattern indicated is similar to that found for the regional survey. Specifically, the State's minimum salaries are generally higher than minimum salaries nationally, and the State's maximum salaries are generally lower than those nationally. With the application of the 6% criterion, about one-half of the grade levels for both minimum and maximum salaries met the 6% criterion.

In general, the State compensates at a higher rate at minimum and lower at maximum salaries. The conclusion may be drawn that the State compensates appropriately, since the State's pay rates were generally within the national salary ranges. Again, as with the other two surveys, it must be understood that this conclusion means the key classes surveyed which made up a grade level are properly compensated; however, there are individual key classes that did not meet the 6% criterion, which may explain why some grade levels did not meet the 6% criterion and indicates some key classes may need to be reviewed.

It should be noted that maximum salaries paid by the State may be artificially lower than the survey maximum salaries. This is due to the State's policy of limiting monthly salary ranges for grades 13 through 25 to \$300, that is, the difference between step 1 and step 13 in monthly salaries is \$300. If maximum salaries are artificially low, then the conclusion that the State compensates appropriately may be invalid, since removal of the \$300 limit would, undoubtedly, raise maximum salaries and consequently show the State compensating higher at maximum, as well as minimum, salaries.

Even though the \$300 limit has undoubtedly kept the State from advancing salaries for grades 13 through 25 ahead of survey participants, it has created a problem as well. The problem is that as percentage increases are added to the salary plan, the difference between minimum and maximum salaries for grades 1 through 12 will increase, that is, the salary range will widen with each percentage increase to salary, whereas the same will not occur for grades 13 through 25 because of the \$300 limit. (The percentage difference between minimum salaries for grades 1 through 25 will, of course, remain consistent since all percentage increases will be applied to all grades' minimum salaries.) This problem will become increasingly evident in those grades closest to the transition point from percentage increase to \$300 maximum increase, particularly grades 12 and 13, since they are at the transition point. Eventually, the result will be that the maximum salary for grade 12 will approach and possibly surpass the maximum salary for grade 13 (given sufficient percentage increases).

The only complete solution to this problem, short of totally revising the pay plan, would be to abandon the \$300 limit provision and allow the percentage difference between minimum and maximum salaries for grades 13 through 25 to equalize with the percentage difference between minimum and maximum salaries for grades 1 through 12. However, The results of the salary survey do not warrant implementing this solution, since the salary survey indicates that State salaries are appropriate with the \$300 limit.

There are two alternative solutions available, albeit partial solutions. One is to retain the initial \$300 limit and add percentage increases to it as they occur. The add-on percentage does not necessarily have to be equal to percentage increases for grades 1 through 12. The other alternative is to periodically raise the monetary limit, that is, raise the \$300 limit to \$400, \$500 or whatever amount is deemed equitable and competitive.

FIGURE V

National Salary Survey Minimum and Maximum  
Compared to Montana Salary Range

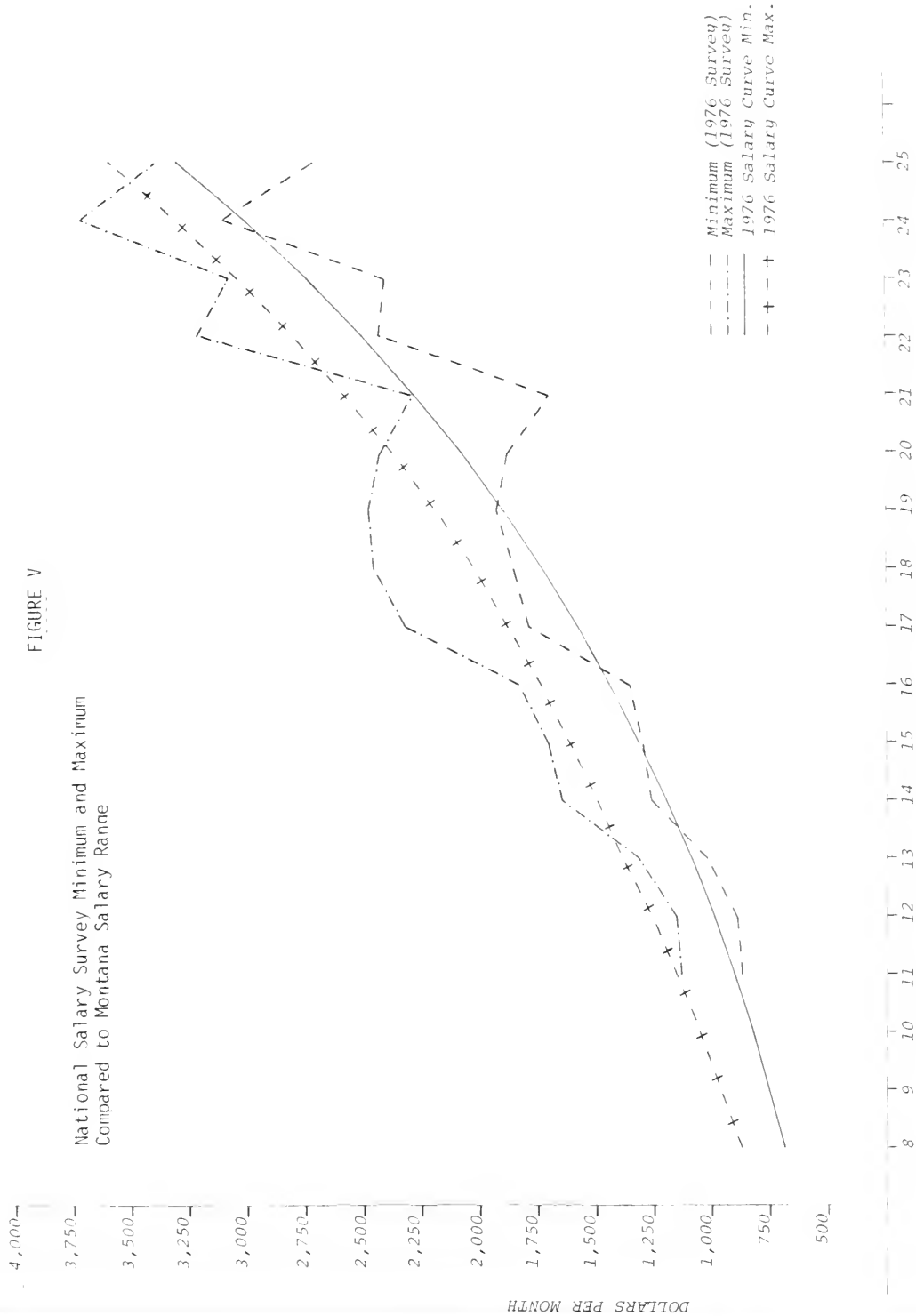
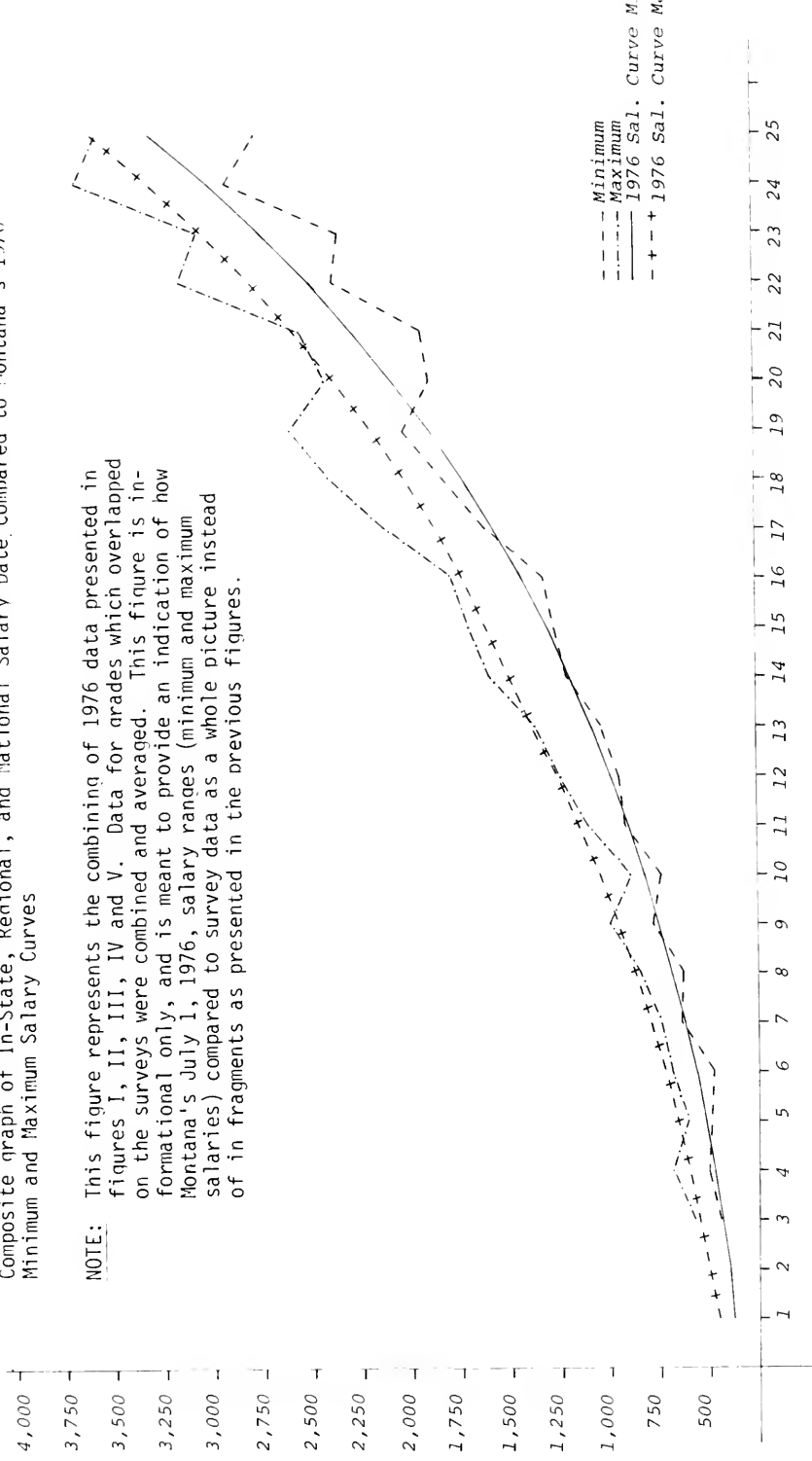




FIGURE VI

Composite graph of In-State, Penional, and National Salary Date, compared to Montana's 1976 Minimum and Maximum Salary Curves

NOTE: This figure represents the combining of 1976 data presented in figures I, II, III, IV and V. Data for grades which overlapped on the surveys were combined and averaged. This figure is informational only, and is meant to provide an indication of how Montana's July 1, 1976, salary ranges (minimum and maximum salaries) compared to survey data as a whole picture instead of in fragments as presented in the previous figures.







## FRINGE BENEFITS

Fringe benefit data were solicited from both in-state and regional survey participants. However, the format in which the in-state data was tabulated does not readily lend itself to comparison with the regional fringe benefit data or the State's fringe benefit offerings. The basic problem with comparability was due to gathering data based on an employee of seven years for the regional survey and the full range of benefits without basing on an employee of seven years for the in-state survey. Also, the in-state data, when tabulated, was not categorized by number of firms offering each benefit but tabulated to show the lowest and highest offering of each benefit (the range) and an average of all the offerings of each benefit surveyed. Because of this, only a short narrative discussion of the regional fringe benefits follows. (The summary of in-state fringe benefits is provided in the Consultant's Report following page 19 of Appendix A.)

In reality, a comparison of fringe benefits between state governments is probably a more valid comparison than the State government to the private sector. The primary reason for this is that state governments generally offer a single benefit package covering all employees and the private sector often provides several packages (one for managerial, another for clerical, and another for labor). A supporting reason is that many jobs are exclusive to state governments and in order to remain competitive states must offer competitive benefits.

Fringe benefit data was gathered in seven areas: Vacation Leave, Sick Leave, Annual Holidays, Emergency Leave (funerals, family sickness, etc.), Holiday and Overtime Pay Rates, Employer's Retirement Contribution, and Employer's Health and Life Insurance Contribution (see following figures).

Montana compared favorably on all fringe benefits offered except for Retirement and Health and Life Insurance. For Employer's Retirement Contribution, Montana placed sixth out of nine states, barely offering a better benefit than the three remaining states and substantially lower than two states. On Employer's Contribution for Health and Life Insurance, Montana offers the lowest benefits, substantially lower than a majority of states in the region.

Considering the total fringe benefit package offered by the State in relation to other states regionally, Montana should consider increasing the State's contribution to both retirement and health and life insurance. Increasing these benefits should place Montana in a more favorable competitive position than it currently holds.

FIGURE VII

PAID VACATION LEAVE ALLOWANCE  
(Based on employee of seven years)

	<i>North Dakota (1)</i>	<i>Oregon (2)</i>	<i>Utah (3)</i>	<i>MONTANA (1)</i>	<i>Wyoming (1)</i>	<i>Colorado (1)</i>	<i>Idaho (1)</i>	<i>South Dakota (1)</i>	<i>Washington (1)</i>
1.75 day/mo.									
1.50 day/mo.	X								
1.25 day/mo.		X	X	X	X	X	X	X	X
1.00 day/mo.									

(1) Maximum accumulation = 30.0 days

(2) Maximum accumulation = 31.25 days

(3) Maximum accumulation = 30.0 days; however, if employee does not use any sick leave in a year, then 3 days sick leave is converted to 3 days vacation. Meeting this condition, maximum accumulation equals 33.0 days.

FIGURE VIII

PAID SICK LEAVE ALLOWANCE  
(Based on employee of seven years)

	Colorado (1)	South Dakota (1)*	Oregon (1)	MONTANA (1)	Idaho (1)	North Dakota (1)	Utah (1)	Washington (1)	Wyoming (1)
11 hours/mo.									
10 hours/mo.	X								
9 hours/mo.		X							
8 hours/mo.			X	X	X	X	X	X	X

(1) No limit on accumulation. Some states provide for some means of lump sum payment on termination, others do not.

\* South Dakota provides an average of 9.33 hours per month. This is due to their policy of allowing 9 hours per month except in June and December, when 11 hours per month are provided.

FIGURE IX

PAID HOLIDAYS PER YEAR  
(Based on employee of seven years)

	<i>Utah</i>	<i>Colorado (1)</i>	<i>Washington</i>	<i>MONTANA (2)</i>	<i>Oregon</i>	<i>Idaho</i>	<i>Wyoming (2)</i>	<i>North Dakota</i>	<i>South Dakota</i>
12 days	X	X							
11 days			X						
10 days				X	X	X			
9 days							X	X	X

(1) Colorado allots 11.5 days. The half day is to cover election day once every two years.

(2) These states provide one additional day during general election years. This additional day is not reflected on the above figure.

FIGURE X

EMERGENCY LEAVE ALLOWANCE  
(Based on employee of seven years)

	Wyoming (1)	Colorado	MONTANA (2)	South Dakota (2)	North Dakota	Utah	Idaho (3)	Oregon (3)	Washington (4)
9 days/year									
7 days/year	X								
5 days/year		X	X	X					
3 days/year					X	X			
1 day/year									
NONE							X	X	X

- (1) Wyoming allows one day of emergency leave per year of service usable only after all other leave is depleted. This leave is paid back at the rate of 2 days per month from other leave as accumulated.
- (2) These states deduct emergency leave from sick leave.
- (3) Sick leave may be taken. There is no specific allowance for emergency leave.
- (4) Sick leave is taken. Washington's policy is that up to five days may be taken per incident. Family is interpreted broadly.

FIGURE XI

## PAY RATE FOR HOLIDAYS AND OVERTIME

	Oregon (1)	Idaho (1)	MONTANA (1)	Wyoming (1)	South Dakota (2)	Washington (3)	Colorado (1)	Utah (4)	North Dakota (5)
HOLIDAYS									
Double time plus $\frac{1}{2}$	X								
Double time		X	X						
Time and $\frac{1}{2}$				X	X	X	X	X	
OVERTIME									
Time and $\frac{1}{2}$	X	X	X	X	X	X	X	X	
Straight									

- (1) Fair Labor Standards Act (FLSA) compensatory and overtime policies are followed in a general way to varying degrees.
- (2) Departments set policy which is then approved by Commissioner. FSLA compensatory and overtime policies are followed in a general way.
- (3) Washington developed its own policy allowing for a 10-hour day/40 hour week without paying overtime for over 8 hours per day. Also, compensatory time may be paid in lieu of overtime only by agreement between employer and employee.
- (4) Utah policy generally is time and one-half for non-professionals and straight time for professionals.
- (5) North Dakota varies agency to agency. Professionals are given compensatory time at straight time rate.

FIGURE XII

EMPLOYER'S MONTHLY CONTRIBUTION FOR RETIREMENT  
(as percentage of salary)

	Utah	Colorado	Oregon	Idaho*	Washington	MONTANA	Wyoming	South Dakota	North Dakota
11.0 - 11.9%	11.05								
10.0 - 10.9		10.64							
9.0 - 9.9									
8.0 - 8.9									
7.0 - 7.9			7.50	7.00	7.00				
6.0 - 6.9									
5.0 - 5.9						5.50	5.45	5.00	
4.0 - 4.9									4.00

\* Effective July 1, 1977, Idaho's contribution increases to 7.30% of annual gross salary.

FIGURE XIII

EMPLOYER'S MONTHLY CONTRIBUTION FOR  
HEALTH AND LIFE INSURANCE\*

	Idaho (1)(2)	Oregon (1)	Washington (1)	Wyoming (1)	Utah (3)	Colorado (1)	North Dakota (1)	South Dakota	MONTANA
Health Insurance	\$37.55	35.00	34.25	25.00	18.22	19.12	19.50	19.12	10.00
Life Insurance	1.33%	---	.75	---	2.40	.88	.39	---	---
Total Contribution	\$37.55+	35.00	35.00	25.00	20.62	20.00	19.89	19.12	10.00

\* All Health Insurance plans except Oregon's are medical only. Oregon contributes \$30 medical and \$5 dental insurance.

- (1) 100% employee only coverage is paid by the State. Colorado's 100% is for low option. Washington's 100% is for low and mid-option, employee makes small contribution for high option.
- (2) Idaho pays 100% for set amount of life insurance equal to 1.33% of annual gross salary.
- (3) Utah has three health insurance options: one for single employee coverage and two for family. The single employee and one family option are more than 90% paid by the State; the other option is 61% paid by the State for more comprehensive coverage. Figures shown are for the lowest cost option (single employee).



FIGURE XIII

NOTES ON LIFE INSURANCE COVERAGE

- Idaho - Life Insurance coverage is equal to yearly gross salary. 100% paid by State, with option for additional coverage at employee expense.
- Oregon - Life Insurance coverage available, but the State does not contribute.
- Washington - Life Insurance coverage is \$2,700.
- Wyoming - Life Insurance is available, but the State does not contribute.
- Colorado - Life Insurance coverage is \$3,500.
- N. Dakota - Life Insurance coverage is \$1,000.
- S. Dakota - Life Insurance available, but no contribution by State.
- Utah - Life Insurance coverage is \$10,000 minimum.
- MONTANA - Life Insurance coverage is \$10,000 (low option) or \$2,000 (high option) included in Health Insurance.



## CONCLUSION

Viewing the salary survey in toto, Montana, in general compensates grade levels appropriately, which in turn means Montana, in general, compensates the key classes surveyed for each grade level appropriately. However, there are particular key classes which the State appears to compensate inappropriately and should review.

Assuming the key classes surveyed are representative of classes in general, Montana compensates State employees at comparable rates to survey participants. It must be recognized, however, that surveying salary ranges does not account for perquisites or fringe benefits offered employees, the influence of collective bargaining, or variations in laws, state-to-state, which may influence salaries for particular classes.

There is one primary difference between the three survey parts which may explain the variance in survey results between the in-state survey on one hand and the regional and national surveys on the other hand, in particular, the in-state survey results indicating that State minimum salaries are lower and maximum salaries higher than survey participants, whereas the regional and national surveys indicate State minimum salaries are higher and maximum salaries lower than survey participants. The difference is that different grade levels were surveyed: grades 3 through 13 for the in-state survey, while the regional surveyed grades 8 through 25 and the national surveyed grades 11 through 25. However, with the application of the 6" criterion (discussed in Methodology section), the three surveys indicate the State and survey participants, in general, compensate comparably.

The fringe benefit survey indicates the State compares favorably to survey participants in 5 out of 7 benefit areas for which data was gathered. The five favorable comparisons were: Vacation Leave, Sick Leave, Annual Holidays, Emergency Leave (funerals, family sickness, etc.), and Holiday and Overtime Pay Rates. The State did not compare on Employer's Contribution for Retirement, for which Montana was low in comparison to survey participants; also, the State did not compare on Employer's Contribution for Health and Life Insurance, for which the State offers the lowest benefits of survey participants.

Considering the results of the salary survey and fringe benefit survey, the conclusion may be drawn that the State compensates appropriately or competitively. That is, the classification and pay plans are generally competitive, and fringe benefits are somewhat low, considering the whole fringe benefit package. It should be noted that this conclusion applies to fiscal year 1976/77 salaries and fringe benefits. Because of this, as far as salaries are concerned, an across the board cost-of-living adjustment to State salaries should be applied in order to maintain the State's competitive position in the labor market. As far as fringe benefits are concerned, the State should increase the State's contribution to both retirement and health and life insurance in order to place Montana in a competitive position in the labor market.

# IN-STATE SALARY SURVEY DATA

The In-State Salary Survey included 36 key classes which are normally recruited in-state as well as some key classes comparable to local governments. Descriptions of the survey key classes used are provided on page of this report.

All salary figures in the following table are expressed in dollars per month.

<u>Grade Level</u>	<u>Key Class Title(s) Surveyed in Each Grade</u>	<u>Key Class Code</u>	<u>1976 Montana Salary Range</u>	<u>1976 In-State Weighted Mean Salary Range Per Grade Level*</u>
3	File Clerk I	206001	432-551	447-576
4	Clerk, Gen. Office I Clerk Typist I Key punch Operator I	219004 209001 213001	473-604	502-682
5	Clerk, Sales I Custodial Worker I Switchboard Oper. I	290001 382001 235001	519-663	496-614
6	Cashier I Clerk Stenographer II	211001 202002	569-727	489-684
7	Accounting Clerk II Cook I Equipment Operator I Nurses Aide I Warehouse Worker II	219002 315001 919004 355005 922002	625-798	641-743
8	Draftsman II Offset Duplicating Machine Operator II	017005 207003	685-875	645-874
9	Clerk Supervisor II Laboratory Technician I Maintenance Worker II	219015 029004 899002	752-961	785-959
10	Equipment Mechanic II Licensed Practical Nurse I Maintenance Painter Police Patrol Officer II Stationary Engineer II Store Manager III	620002 079001 840001 375015 950002 185005	825-1053	894-993
11	Accountant I Machinist Maintenance Carpenter Maintenance Electrician Police Sergeant Registered Nurse	160013 600001 860001 829001 375007 075013	905-1156	1048-1143

Grade Level	Key Class Title(s) Surveyed In Each Grade	Key Class Code	1976 Montana Salary Range	1976 In-State Weighted Mean Salary Range Per Grade Level*
12	Civil Engineer I Professional Nurse I Purchasing Agent III	005047 075001 162003	993-1268	1053-1305
13	Food Service Manager II Lawyer I	319002 110001	1089-1390	1024-1325

\* These figures are not the actual mean salary range which are used in the Regional and National data tables, but have been weighted (see page 14 of Consultants' Report - Appendix A in this report).

The Regional Salary Survey covered 63 key classes and consisted of key classes for which out-of-state recruitment has been common, as well as key classes which are unique to state government. Descriptions of the key classes used are provided on page of this report.

Eight states were surveyed in Montana's region. The participating states were Colorado, Idaho, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

All salary figures in the following table are expressed in dollars per month.

Grade Level	Key Class Title(s) Surveyed in Each Grade	Key Class Code	1976 Montana Salary Range	1976 Regional Weighted Mean Salary Range Per Grade Level
8	Psychiatric Aide II	355009	685 - 875	632 - 835
9	Correctional Officer	372005	752 - 961	783 -1049
10	Licensed Practical Nurse I	079001	825 -1053	598 - 796
11	Right of Way Agent II	191010	905 -1156	853 -1153
	Fish & Game Warden I	379004		
	Accountant I	160013		
	Forester I	040011		
	Statistician I	020015		
	Training Officer I	166007		
	Social Worker I	195008		
12	Highway Patrol Officer II	375002	993 -1268	922 -1300
	Bank Examiner I	160035		
	Civil Engineer I	005047		
	Social Worker II	195009		
	Computer Programmer II	020026		
	Editor I	132001		
	Professional Nurse I	075001		
13	Fisheries & Wildlife Biologist II	041028	1089-1390	1075 -1450
	Chemist III	022005		
	Geologist II	024004		
	Job Analyst II	166006		
	Electrical Inspector	824001		
	Archivist II	101002		
	Administrative Officer I	169011		
	Lawyer I	110001		
	Landscape Designer III	019007		
14	Pharmacist	074004	1194-1495	1161 -1565
	Bank Examiner II	160036		
	Civil Engineer III	005016		
	Pilot II	196002		

<u>Grade Level</u>	<u>Key Class Title(s) Surveyed in Each Grade</u>	<u>Key Class Code</u>	<u>1976 Montana Salary Range</u>	<u>1976 Regional Weighted Mean Salary Range Per Grade Level</u>
14	(continued) Personnel Officer II Systems Analyst, Data Processing II Psychologist II	166013  012009 045005	1194 - 1495	1161 - 1565
15	Budget Analyst II Lawyer II Social Worker Supervisor II Management Analyst III	161006 110002  195022 020023	1310 - 1611	1255 - 1709
16	Employment Manager III Software Specialist III	166028 213028	1438 - 1739	1299 - 1765
17	County Welfare Director Dentist Pharmacist Inspector	188016 072002 074007	1577 - 1877	1460 - 1950
18	Law Enforcement Div. Administrator (F&G) Forestry Division Administrator Rehabilitation Services Div. Administrator Chief, Employment Service Bureau State Librarian	379013   040002  169096  166036 100005	1730 - 2030	1797 - 2374
19	Personnel Division Administrator Admin., Maintenance Div. - Highways Chief, Construction Bureau	166022   005029  005004	1898 - 2199	2134 - 2735
20	Deputy Director, Dept. of Fish & Game Admin., Worker's Comp. Division Deputy Director, Dept. of Revenue	169099  169130 169105	2082 - 2382	1908 - 2415
21	Administrator, Invest- ments Division Admin., Engineering Div. - Highways Chief, Dental Health Bureau	020001  005002 072001	2284 - 2584	2158 - 2801
22	Admin., Mental Health & Mental Retardation Division Psychiatrist II	169046 070002	2506 - 2806	2330 - 3106

<u>Grade Level</u>	<u>Key Class Title(s) Surveyed in Each Class</u>	<u>Key Class Code</u>	<u>1976 Montana Salary Range</u>	<u>1976 Regional Weighted Mean Salary Range Per Grade Level</u>
23	Physician III Admin., Corrections Division	070009 372013	2748 - 3049	2290 - 3063
24	Psychiatrist IV Admin., Health Services Division	070004 070016	3015 - 3315	2749 - 3639
25	Superintendent, Institutions V	187025	3308 - 3608	2837 - 3752



# NATIONAL SALARY SURVEY DATA

The National Salary Survey included 25 key classes and was primarily comprised of key classes for which out-of-state recruitment is common, as well as key classes which are unique to state government.

Data from three survey agents is utilized in this survey: Hay Associates - "1977 State Government Salary Survey;" U.S. Civil Service Commission - "1976 State Salary Survey;" and International Personnel Management Association - "Pay Rates in the Public Service, 1976." Descriptions of the key classes has not been provided in this report, since the survey agents provided them, not the State of Montana.

All salary figures in the following table are expressed in dollars per month.

<u>Grade Level</u>	<u>Key Class Title(s) Surveyed in Each Grade</u>	<u>Key Class Code</u>	<u>1976 Montana Salary Range</u>	<u>1976 National Mean Sal. Range Per Grade Level</u>
11	Rehabilitation Counselor I Computer Programmer I	045010 020025	905 - 1156	873 - 1139*
12	Professional Nurse I Civil Engineer I	075001 005047	993 - 1268	894 - 1158
13	Job Analyst II Social Worker III	166006 195010	1089 - 1390	1023 - 1346*
14	Civil Engineer III Veterinary Livestock Inspector	005016 073005	1194 - 1495	1261 - 1642
15	Systems Analyst, Data Processing III Management Analyst III	012010 020023	1310 - 1611	1296 - 1708
16	Employment Manager III Chief, Statistics and Research Bureau	166028 020008	1438 - 1739	1356 - 1826*
17	Admin., Purchasing Division Chief, Materials Bureau	162005 005036	1577 - 1877	1788 - 2324*
18	State Librarian Chief, Water Quality Bureau	100005 005001	1730 - 2030	1858 - 2458*
19	Admin., Personnel Division Chief, Construction Bureau	166022 005004	1898 - 2199	1927 - 2476*

<u>Grade Level</u>	<u>Key Class Title(s) Surveyed in Each Grade</u>	<u>Key Class Code</u>	<u>1976 Montana Salary Range</u>	<u>1976 National Mean Sal. Range Per Grade Level</u>
20	Physician I Hospital Administra- tor II	007007 187020	2082 - 2382	1885 - 2438
21	Superintendent, Insti- tutions IV	187024	2284 - 2584	1706 - 2296*
22	Budget Director	169162	2506 - 2806	2433 - 3217*
23	Psychiatrist III	070003	2748 - 3049	2413 - 3086
24	Psychiatrist IV	070006	3015 - 3315	3100 - 3725*
25	Physician IV	070010	3308 - 3608	2708 - 3395

\* These figures were calculated using Hay Associates interquartile range and averaging with the actual ranges provided by the other two survey agents, when applicable, since Hay did not provide actual salary ranges.

# IN-STATE SURVEY KEY CLASS DESCRIPTIONS - 1976

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>File Clerk I</u>		<u>206001</u>	<u>3</u>
Files correspondence, invoices, receipts and other records in alphabetical or numerical order, or according to other filing systems, locates and removes material from files, keeps records of files removed, keeps record of removed material. Entry level clerical work.			
<u>Clerk Typist I</u>		<u>209001</u>	<u>4</u>
Performs routine entry level clerical and typing work including typing reports, letters, cards, stencils, and related items from typed or rough drafts, following well established procedures; may operate simple office machines such as mimeograph and postal machines.			
<u>Clerk, General Office I</u>		<u>219004</u>	<u>4</u>
Performs routine entry level clerical work which is highly repetitive, including: arranging, sorting or filing material alphabetically, numerically, or by other categories; types labels, file cards, and other routine material; checks forms, records, and other material for correctness of routine information; may use calculator to check simple forms and records for mathematical accuracy; sorts mail for distribution; follows standard procedures and practices.			
<u>Keypunch Operator I</u>		<u>213001</u>	<u>4</u>
Operates alphabetic and numeric keypunch equipment. Punches machine cards while receiving on-the-job training to improve speed and accuracy. Entry level position.			
<u>Custodial Worker I</u>		<u>382001</u>	<u>5</u>
Sweeps, mops, scrubs, and polishes floors; waxes floors and operates vacuum cleaner and buffing machine; collects and empties trash containers. Cleans and polishes metal surfaces, lavatories, showers, and restrooms. May maintain building security on evening shifts.			
<u>Switchboard Operator I</u>		<u>235001</u>	<u>5</u>
Operates key or plug switchboards; answers switchboard signals; keeps record of long distance calls; assists in dialing and completing long distance calls; refers inquiries to proper agencies. Requires one year experience involving telephone work.			

IN-STATE SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Clerk, Sales I</u>		<u>290001</u>	<u>5</u>
Performs routine entry level sales work including waiting on customers; operating cash register; straightening and stocking shelves; packing and unpacking merchandise; and helping with inventory.			
<u>Clerk Stenographer II</u>		<u>202002</u>	<u>6</u>
Takes dictation and transcribes from a dictaphone; types reports and correspondence, files, answers phone; uses copy machine. Requires shorthand and typing skills and one year experience.			
<u>Cashier I</u>		<u>211001</u>	<u>6</u>
Performs routine entry level clerical work in receiving and validating fees and other monies including issuing receipts; maintaining records of receipts and disbursements; comparing amount of money in register to total cash register receipts printout; prepares required tabulations and deposits; may post data to proper accounts and balance cash books; may sort checks and compute amounts using calculator.			
<u>Accounting Clerk II</u>		<u>219002</u>	<u>7</u>
Performs bookkeeping work of average difficulty in the preparation and processing of financial records and reports including balancing claims and coding claims for data processing and posting. Requires one year experience.			
<u>Cook I</u>		<u>315001</u>	<u>7</u>
Performs food preparation work of average difficulty in assisting in the preparation of breakfasts, lunches and dinners; may work as a grill cook. Requires one year experience.			
<u>Equipment Operator I</u>		<u>919004</u>	<u>7</u>
Operates light equipment, such as delivery vans and pick-up trucks in performance of various tasks. Loads and unloads the vehicles. Entry level position. Requires chauffeur's license.			
<u>Nurses Aide I</u>		<u>355005</u>	<u>7</u>
Performs a variety of sub-professional bedside care duties for patients at state hospitals; including the taking and recording of patients pulse, temperature, respiration and blood pressure. Entry level position.			

# IN-STATE SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Warehouse Worker II</u>		<u>922002</u>	<u>7</u>
Unloads freight shipments, places stock in inventory, prepares orders; may assist in taking physical inventory of stock. Requires one year experience.			
<u>Draftsman II</u>		<u>017005</u>	<u>8</u>
Prepares detailed drawings from rough sketches or notes for construction plans, topographical profiles, and related maps of areas showing location and identity of roads, communities and structures. Computes grades; reduces and plots cross-section notes. Requires one year experience.			
<u>Offset Duplicating Machine Operator II</u>		<u>207003</u>	<u>8</u>
Performs skilled operation of offset duplicating machine, such as A.B. Dick or Multilith, including set up and operation of duplicator to reproduce forms, letterheads, manuals, and other materials in one or more colors; prepares final layouts of materials; operates camera to produce negatives or direct image masters; prepares offset plates; operates paper cutter, hole punch, collator, folder and stitcher; assembles pads and glues forms; packages finished materials; arranges and keeps stock orderly; cleans, oils, and adjusts machinery; may assist in training and supervision of other employees. Requires minimum of three years experience.			
<u>Clerk Supervisor II</u>		<u>219015</u>	<u>9</u>
Supervises small clerical staff, assigns duties, reviews work, orders office supplies, orientates new clerical personnel to office procedures, may supervise stenographic pool, types memos, reports and performs other clerical functions. Requires two years progressively responsible experience.			
<u>Laboratory Technician I</u>		<u>029004</u>	<u>9</u>
Logs in specimens or samples and prepares them for testing. Assists in routine testing; prepares media, reagents and solutions; records results of tests; may keep inventory of supplies and reorder when needed. Requires two years laboratory experience.			
<u>Maintenance Worker II</u>		<u>899002</u>	<u>9</u>
Performs varied manual and semi-skilled work in facilities maintenance, construction, and grounds keeping activities including repair, maintenance and upkeep of buildings, motorized equipment, heating and plumbing systems, upkeep of roads and grounds, and assists craftsmen in carpentry and electrical upkeep; operates a variety of equipment such as loaders, backhoes, farm equipment, trucks and buses; builds forms and pours concrete; may act as lead worker in supervisor's absence. Requires one year maintenance experience.			

# IN-STATE SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Equipment Mechanic II</u>		<u>620002</u>	<u>10</u>
Repairs and maintains automotive and other mechanical equipment. Performs repairs and tune-ups on diesel engines, does work on transmissions, electrical systems; welding and machine work. Journeyman level work.			
<u>Police Patrol Officer II</u>		<u>375015</u>	<u>10</u>
Patrols an assigned area on foot or in a vehicle, watching for disorderliness and other violations including parking enforcement and moving violations; polices special events; may be on call 24 hours a day for emergencies; may supervise clerical or non-uniformed personnel. Requires one year experience in security or law enforcement and completion of 280 hour Basic Law Enforcement Academy Course.			
<u>Licensed Practical Nurse I</u>		<u>079001</u>	<u>10</u>
Performs semi-skilled routine nursing work; administers prescribed medications; assists physicians; orders medications and supplies; charts patients' condition; gives bedside care such as bathing and dressing. Entry level work.			
<u>Maintenance Painter</u>		<u>840001</u>	<u>10</u>
Performs skilled journeyman painting work. Prepares and mixes paints, varnish, stains. Applies paint to exterior and interior of buildings; performs maintenance work necessary to accomplish painting.			
<u>Stationary Engineer II</u>		<u>950002</u>	<u>10</u>
Performs manual and semi-skilled work involved in firing and maintaining boilers (15 pounds or more pressure per square inch) used in heating buildings; adjusts fuel supply and drafts, maintains proper pressures and water levels; cleans, oils, adjusts, and makes minor repairs; performs related mechanical and manual work. Requires 2nd class boiler engineer's license.			
<u>Store Manager III</u>		<u>185005</u>	<u>10</u>
Supervises and participates in work of serving customers; maintains store and accounting records; takes periodic physical inventory; opens and closes store; sets up cash drawers; makes bank deposits; orders merchandise; supervises, trains, and evaluates employees; answers customer inquiries and complaints; takes and fills bar orders. Requires two years increasingly responsible experience.			

IN-STATE SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Police Sergeant</u>		<u>375007</u>	<u>11</u>
Schedules and assigns work of other officers; performs field work in enforcement, patrolling, and investigating in an assigned area. Supervises small uniformed staff (2-3) and clerical and non-uniformed personnel as assigned; may assist in training patrol officers; may assume responsibility in absence of superior; may require knowledge of bomb disposal. Requires three years experience and completion of 280 hour Basic Law Enforcement Academy Course.			
<u>Accountant I</u>		<u>160013</u>	<u>11</u>
Maintains control and subsidiary accounting records; prepares financial statements, statistical reports; participates in study of accounting systems and makes recommendation for improvement. Makes entries into the statewide budget and accounting system. May perform specialized accounting; may review the work of accounting, clerical accounting personnel, or may perform routine cost accounting. Entry level professional accounting.			
<u>Machinist</u>		<u>600001</u>	<u>11</u>
Repairs and builds metal parts using milling machine, lathes, shaper, grinder; repairs machinery; studies blueprints, sketches to fabricate requested equipment. Journeyman level work.			
<u>Maintenance Carpenter</u>		<u>860001</u>	<u>11</u>
Performs maintenance of structural woodwork and equipment. Builds, repairs, and installs woodwork such as counters, benches, windows; replaces damaged ceiling tile, floor tile. Journeyman level work.			
<u>Maintenance Electrician</u>		<u>829001</u>	<u>11</u>
Performs journeyman maintenance work in the installation, alteration, maintenance and repair of electrical lighting and power systems.			
<u>Registered Nurse</u>		<u>075013</u>	<u>11</u>
Performs entry level technical nursing services including administering and recording medications; assisting physician in a variety of medical procedures; administers first aid; observes, records, and reports the physical and mental condition of patients; performs simple tests for vital signs; treats minor ailments; visits and counsels with patients; may assist in day-to-day operation of a clinic.			

# IN-STATE SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Civil Engineer I</u>		<u>005047</u>	<u>12</u>
Civil engineering work in inspecting varied construction work to assure compliance with plans and specifications at times making minor changes in plans; estimates and calculates quantities of materials and costs; performs drafting functions; assists in design of construction and alterations; makes hydrologic analysis; writes reports; may direct work of technical engineering personnel. Entry level professional civil engineering.			
<u>Professional Nurse I</u>		<u>075001</u>	<u>12</u>
Performs entry level professional nursing duties of average difficulty in the care of the physically or mentally ill or mentally retarded; supervises care on a ward at a medical facility or provides a variety of health services for students at a college or university. Requires state licensure for Registered Nurse.			
<u>Purchasing Agent III</u>		<u>162003</u>	<u>12</u>
Performs technical purchasing work for other state departments; receives and reviews requests for equipment, supplies and materials; reviews specifications; interviews vendors; prepares bids; negotiates contracts to buy materials. Requires five years wholesale buying experience or BA degree in Retailing and one year experience.			
<u>Lawyer I</u>		<u>110001</u>	<u>13</u>
Legal work in research into issues and problems, and preparing reports on findings; makes investigations to determine statutory compliance; advises on legal administrative matters. Entry level professional law work.			
<u>Food Service Manager II</u>		<u>319002</u>	<u>13</u>
Supervises kitchen employees; plan menus; supervises and performs preparation and cooking of food, serving of food, and cleaning of kitchen area and equipment; inventories and orders food and supplies; maintains effective cost control; hires and evaluates employees. Requires three years experience and two years college coursework in business.			



# REGIONAL SURVEY KEY CLASS DESCRIPTIONS - 1976

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Psychiatric Aide II</u>		<u>355009</u>	<u>8</u>
Assists institutionalized patients who are mentally ill or retarded in areas of personal care such as personal hygiene, grooming, eating, housekeeping and similar activities; acts as ward charge supervising activities of Psychiatric Aides I. Requires completion of in-service training and one year experience.			
<u>Correctional Officer</u>		<u>372005</u>	<u>9</u>
Assists in directing general movement of inmate; maintains order and discipline. Reports infractions of rules, patrols and inspects institutional facilities for security purposes. Observes inmates for unusual behavior. Entry level work.			
<u>Licensed Practical Nurse I</u>		<u>079001</u>	<u>10</u>
Performs semi-skilled routine nursing work; administers prescribed medications; assists physicians; orders medications and supplies; charts patients' condition; gives bedside care such as bathing and dressing. Entry level work.			
<u>Right of Way Agent II</u>		<u>191010</u>	<u>11</u>
Assists in less complex property appraisals and negotiations. Examines real estate titles and assists in preparing advance right of way cost estimates for budgeting and engineering location purposes. May serve as relocation agent for area. Requires two years experience.			
<u>Fish and Game Warden I</u>		<u>379004</u>	<u>11</u>
Performs a variety of entry level professional enforcement duties. Patrols lakes, streams, and forests in assigned areas; enforces laws regulating the taking, possession, transporting and disposition of game, fish, and fur.			
<u>Accountant I</u>		<u>160013</u>	<u>11</u>
Establishes and maintains control and subsidiary accounting records involving a wide variety of accounts and transactions; prepares financial statements and budgets; assists in audits and internal reconciliations; participates in the study of accounting systems and makes recommendations for improvements; assists in the installation of accounting systems. Entry level professional accounting.			

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
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<u>Forester I</u>		<u>040011</u>	<u>11</u>
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Evaluates timber tracts and inventories to determine quantity and quality; consults with, advises and assists holders of small forest properties in harvesting, utilization, marketing, regeneration and overall conservation of forest resources; reads and evaluates aerial photographs and maps of forest sales area; suppresses forest planting sites, stands in need of improvement and insect diseases surveys; makes recommendations for timber sales agreements, takes positive action on violation of state forestry laws; may supervise, teach, guide and counsel youths in forestry practices at a corrective camp or other location; may supervise laborers in thinning, planting, hazard reduction, timber stands improvement and fire suppression; makes reports and maintains records. Entry level professional forest management work.

<u>Statistician I</u>		<u>020015</u>	<u>11</u>
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Conducts assigned phases of statistical surveys, research studies or reporting programs; prepares questionnaires and other forms for use in gathering and reporting raw data; edits raw data for accuracy, completeness, and comparability; determines form and method of tabulating raw data and applies the simpler statistical methods to the analysis of tabulated data; prepares final or rough draft for periodic or special reports, including summary tables, graphs, and charts, and explanatory text based upon the tabulated data and analyses; establishes codes and instructions for key punching and develops wiring diagrams and procedures for tabulation of punched cards. Entry level professional statistical work.

<u>Training Officer I</u>		<u>166007</u>	<u>11</u>
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Assists in the planning, development, coordination, conducting, and evaluation of specific training programs and instructional materials; interprets policies and guidelines and conducts on-site inspection of compliance to Equal Employment Opportunity (EEO) standards and implements EEO policies and programs; revises and updates lesson material for training programs; investigates and evaluates establishments to ascertain if facilities, supervision and training methods comply with governmental standards; may travel extensively. Paraprofessional work requiring four years experience in the training field.

<u>Social Worker I</u>		<u>195008</u>	<u>11</u>
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Obtains information from the client, members of the family and others, through personal interviews and correspondence, in order to identify problems and the need for social services; assesses problematic areas of adults or families with children to develop a plan for intervention; may render social services to children who are dependent, neglected, homeless, abused, exploited or in danger of becoming delinquent and to families in cases of dependence and neglect; may render social services to adults who are aged, disabled or visually handicapped; develops and suggests plans to assist applicants and

REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Social Worker I (cont.)</u>	recipients in understanding and using all available resources; may study and recommend for licensing foster and day care homes; may provide family planning service; interprets to the client, the policies, rules and regulations and objectives of the department; prepares and maintains case records, dictates case findings and correspondence and prepares necessary forms and reports; makes referrals between the department and related public and private agencies and institutions; identifies and participates in the development or improvement of community resources as related to agency objectives. Entry level professional social work.		
<u>Highway Patrol Officer II</u>	Investigates traffic accidents, inspects vehicles for compliance with State statutes, issues traffic violations, apprehends lawbreakers, testifies in court, conducts driver examinations, assists in local disasters, serves warrants and orders, makes emergency blood and medicine runs; operates vehicles. Requires one year experience at the trainee level.	<u>375002</u>	<u>12</u>
<u>Bank Examiner I</u>	Assists in examination of, and preparation of reports on, financial condition of banks and trust companies; counts and proves cash on hand and verifies and appraises cash items in process of collection; assists in proving loans and discounts, bonds and mortgages, checks collateral and securities in safe-keeping; prepares reconcilements of correspondent bank accounts; makes test checks and audits and assists in preparation of schedules of earnings and expenses; assists in review of banks' accounting methods, its system of internal audit and operating routine. Requires one year bank examining experience. Professional bank examining work.	<u>160035</u>	<u>12</u>
<u>Civil Engineer I</u>	Inspects varied construction work to assure compliance with plans and specifications, rejecting and approving materials and work and at times making minor changes in plans; estimates and calculates quantities of materials and costs; performs drafting functions such as plotting survey notes, drawing cross-sections, profiles and improvement plans; assists in the design of construction and alteration of highways, structures, parks, and other public work projects; makes hydrologic analysis of situations pertaining to civil engineering projects; writes reports; may direct the work of technical engineering personnel. Entry level professional civil engineering work.	<u>005047</u>	<u>12</u>
<u>Social Worker II</u>	Provides counseling and guidance to patients and inmates of state institutions; provides follow-up counseling toward emotional stability, job placement and	<u>195009</u>	<u>12</u>

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
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Social Worker II (cont.)

development, educational and vocation training; provides counseling to families of institutionalized inmates or patients; prepares and maintains case records, correspondence and reports; processes referrals to related public and private agencies. Professional level social work requiring one year experience.

Computer Programmer II

020026 12

Plans, designs, and develops programming procedures; establishes coding procedures and programming standards; edits machine detail; analyzes, modifies, and revises established programs to meet agency requirements; develops and applies cross-checks and other types of testing media for tracing various computer phases; analyzes test results to detect technical programming errors and to isolate factors causing abnormal machine behavior or malfunction; verifies validity of new or modified programs. Technical level computer programming. May supervise beginning level programmers. Requires two years training in EDP and four years experience.

Editor I

132001 12

Researches and writes articles for publications, edits and proofreads copy; performs public relations work by gathering and disseminating news through the news media; lays out paper; corrects galley proofs; keeps records. Entry level professional writer and editor.

Professional Nurse I

075001 12

Performs entry level professional nursing duties of average difficulty in the care of the physically or mentally ill or mentally retarded; supervises care on a ward at a medical facility or provides a variety of health services for students at a college or university. Requires state licensure for Registered Nurse.

Fisheries and Wildlife Biologist II

041028 13

Collects, compiles and analyzes data obtained from surveys and investigations; uses statistical methods in designing sampling techniques and analyzing data; writes technical reports. Professional biological work requiring a Master's degree in Fish and Wildlife Management.

Chemist III

022005 13

Conducts chemical investigations of water or air pollution, food products, crop or livestock contamination, mislabeling of agricultural products and chemicals;

REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Chemist III (cont.)</u>	determines extent and type of sampling necessary, selects and performs appropriate laboratory procedures and analyses; completes and checks laboratory calculations and projections; formulates and reports conclusions; suggests remedial measures; develops laboratory routines and procedures for handling of high-volume testing under standards-maintenance programs; trains and supervises subordinate laboratory personnel; investigates erratic findings; determines procedures for separating, identifying, and measuring quantities of novel chemical components in foods, feeds, fertilizers, plant and animal tissue, and other samples; consults chemical journals and technical literature for techniques which may be used or adapted for use; operates and performs operational calibrations on electronic analytical instruments for identification and measurement of chemical components and radiation such as gas chromatographs, infra-red spectrophotometers, polariscopes, and radiation analyzers, for which standards and techniques have been recorded in chemical journals, manufacturers' guides, and other chemical analytical literature; employs known methods of sample preparation for measurement of microquantities; writes laboratory analysis and research reports; presents findings to agencies, committees, and individuals within general procedural framework; assists in the design or study of special laboratory equipment for adaptation to specific program requirements; may be in charge of a specific area of analysis or a specific project. Complex professional work requiring two years experience.		
<u>Geologist II</u>		<u>024004</u>	<u>13</u>
	Performs soil and rock surveys and the taking of test borings, including sampling of soil and rock; predicts extent, uniformity and continuity of rock in roadway cuts, and extent of jointing or other alterations due to faulting or folding in rocks; identifies rock types which may affect design for roadway slopes and stability in foundations; studies and recommends treatment of landrock formations; makes statewide surveys of material resources used in highway construction, such as gravel, sand, earth and rock; interprets subsurface conditions by application of knowledge of general geology, geomorphology, glacial geology and petrology; prepares reports describing findings on engineering geology investigations and recommending treatment; compiles geological data on oil and gas fields; supervises compilation of various maps and other data related to oil and gas fields; supervises receiving, preparation and storage of drilling cores and cuttings. Professional level work requiring two years experience.		
<u>Job Analyst II</u>		<u>166006</u>	<u>13</u>
	Maintains and revises existing classification system; performs position audits; analyzes and reviews for approving new and modified positions and in recommending adjudications of formal classification appeals; writes and reviews class specifications; develops and modifies class series; collects, analyzes, and applies wage and salary data; assists in developing and writing functional and administrative policies and procedures; prepares materials for and testi-		

REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Job Analyst II (cont.)</u>	files at formal appeal hearings; discusses proposed additions and modifications with budget analysts to verify validity of agency staffing pattern; provides support data and recommendations for management in collective bargaining; provides liaison duties with agency officials in recommending assignment of duties for establishing proposed classifications and in providing information regarding classification policies and procedures; composes correspondence to other units, agencies, individuals, and/or organizations; performs special assignments; may act as lead worker. Professional level work requiring two years personnel management experience, including one year in position classification.		
<u>Electrical Inspector</u>	Inspects new electrical construction projects to insure compliance with approved plans, specifications and governmental regulations. Requires Journeyman Electrician license and three years experience.	<u>824001</u>	<u>13</u>
<u>Archivist II</u>	Acquisitioning, calendaring, cataloging, retrieval and reference services of manuscript holdings; providing training and technical assistance to communities. Moderately complex professional work. Requires a Master's degree in American History with emphasis on Western History and two years experience.	<u>101002</u>	<u>13</u>
<u>Administrative Officer I</u>	Directs and participates in a variety of administrative and business management functions involving the making of administrative decisions. Assists in formulating and implementing policies; may direct the administrative functions of a board or commission. May supervise others as assigned. Requires BA degree and two years experience.	<u>169011</u>	<u>13</u>
<u>Lawyer I</u>	Performs entry level professional legal work in research into issues and problems, and preparing reports on findings; makes investigations to determine statutory compliance; advises on legal administrative matters; may draft proposed legislation, resolutions, procedures or rules and regulations. JD degree required.	<u>110001</u>	<u>13</u>
<u>Landscape Designer III</u>	Performs landscaping development and planning for facilities, highways, parks and other areas; studies sites; drafts plans and specifications and estimates	<u>019007</u>	<u>13</u>

REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Landscape Designer III (cont.)</u>	costs; designs roadside developments, parking facilities, general landscaping, boating and recreation areas and other projects; experiments with drought resistant and erosion lessening ground cover; assists in safety planning where proper landscaping may reduce accidents and hazards; meets and talks with groups, organizations and individuals in discussing landscape architectural matters; keeps records and makes reports; supervises the work of others including construction personnel. Professional level work requiring three years experience.		
<u>Pharmacist</u>	Operates hospital pharmacy; compounds, manufactures, labels and dispenses drugs and pharmaceutical preparations; fills prescriptions for drugs and pharmaceuticals, instruments, dressings, apparatus, and surgical supplies; keeps records of alcohol and narcotics received, on hand, dispensed, and on order; maintains perpetual inventory of all drugs and surgical supplies; prepares periodic reports for attending physicians and supervisor; keeps medical supply room and pharmacy secure, orderly, and in sanitary condition; prepares and standardizes solutions and other preparations. Professional pharmaceutical work, no experience required.	<u>074004</u>	<u>14</u>
<u>Bank Examiner II</u>	Verifies and balances bank's cash; proves and verifies various general ledger accounts; analyzes and proves bank's security investment portfolio; appraises and classifies loans after analysis of collateral, financial statements, notes, letters, and other documents pertinent to each loan; analyzes lines of credit and profit and loss accounts and verifies trust assets; discusses banking policies and procedures with bank's management during course of examination; prepares report of examination findings for discussion and submission to bank's board of directors and supervisor of banking; may be examiner in charge when examining smaller financial institutions. Professional examining work of medium-sized state chartered commercial banks. Requires three years bank examining experience.	<u>160036</u>	<u>14</u>
<u>Civil Engineer III</u>	Receives engineering assignments and project responsibility for the inspection, design, or redesign of highway structures, facilities, drainage systems, parks and other public works projects; makes basic designs indicating locations, shapes or outlines, schematic diagrams and required detail of elements, assemblies or component parts of physical plant property of structures; performs necessary mathematical computations such as load conditions, stresses and strains, and other engineering design problems; inspects test procedures and borings for soil conditions; coordinates contractor work with functions of	<u>005016</u>	<u>14</u>

REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Civil Engineer III (cont.)</u>	existing operations to minimize interruptions and maintain operating efficiency; assist in on-site inspections of projects. Professional civil engineering work with project responsibility. Requires four years progressively responsible experience.		
<u>Pilot II</u>		196002	14
	Pilots airplane in transporting state personnel; may perform low level flying in fighting forest fires and counting game; assists in scheduling and effecting aircraft repair and maintenance. Professional airplane pilot work. Requires airline transport rating; commercial, single, multi-engine and instrument ratings; flight instructor through instruments; 2500 hours pilot-in-command flying status; and graduation from an approved FAA flight school or military flight school.		
<u>Personnel Officer II</u>		166013	14
	Organizes recruitment, selection, and training procedures, suggest changes in organizational, and functional structures of a state department or smaller unit, assists in personnel classifications; may participate in labor negotiations. Professional level personnel work requiring two years experience.		
<u>Systems Analyst, Data Processing II</u>		012009	14
	Plans, designs, analyzes, and implements computer systems to accommodate users' needs. Determines what equipment and personnel is needed to complete the project. Complex professional work requiring three years experience.		
<u>Psychologist II</u>		045005	14
	Uses appropriate psychological tests and techniques to aid in the study, treatment and rehabilitation of patients. Professional level counseling requiring a Master's degree in Psychology and two years experience.		
<u>Budget Analyst II</u>		161006	15
	Performs professional budgetary work assisting in budget preparation by reviewing, analyzing and recommending spending levels that meet established criteria; evaluates departmental budget requests for amendments to legislatively authorized spending patterns; prepares and submits analyzed recommendations on agency requests for spending, including staff workload evaluation, expansion of current programs, new program requests and submits effectiveness analysis of existing programs; reviews departmental operational plans on a periodic basis to determine if authorized spending and collection levels are		



# REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Budget Analyst II (cont.)</u>	being followed; prepares documentation for fiscal impact statements; assists in the preparation of special project requests. Requires four years experience in budget preparation in a governmental organization.		
<u>Lawyer II</u>		<u>110002</u>	<u>15</u>
	Conducts legal research into specialized issues and problems and prepares reports on findings; advises on legal administrative matters; conducts hearings and prepares findings and recommendations; prepares and presents agency cases at hearings, trials, and other legal proceedings; drafts proposed legislation, resolutions, procedures, rules and regulations, and documents such as contracts and leases. Professional legal work of considerable difficulty. Requires JD degree and one and one-half years experience.		
<u>Social Worker Supervisor III</u>		<u>195022</u>	<u>15</u>
	Supervises the social service programs on a district or institutional level; coordinates service programs with those of other agencies, as well as with various divisions and bureaus within the parent agency; interprets federal and state regulations, policies and procedures; appraises administrative supervisors of effects of policy on staff and social service programs; implements policies and procedures within district or institution; plans for staff development and training needs of social work staff. Professional social assistance work requiring a Master's degree in Social Work and two years progressively responsible experience including one year in a supervisory capacity.		
<u>Management Analyst III</u>		<u>020023</u>	<u>15</u>
	Recommends organizational arrangements, performance criteria and administrative policies, and develops management techniques and tools designed to help achieve the goals of the organization and the purposes of its programs; assists supervisors in the installation and use of management techniques and tools such as production planning and control, systems and procedure analysis, work measurement, quality control and statistical sampling techniques; evaluates management controls, reports, plans of service and other related documents as to their usefulness and effect on management capacity. Administrative and professional management, organization, and operations analysis. Requires three years administrative, supervisory, or consultative experience in government or private industry, including or supplemented by one year of technical experience in management or administrative analysis.		
<u>Employment Manager III</u>		<u>166028</u>	<u>16</u>
	Supervises the work of a local employment office; interprets and applies policies, plans, and instructions received from superiors; maintains office		

# REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

TITLE	DESCRIPTION	CLASS CODE	GRADE
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## Employment Manager III (cont.)

organization and supervision; trains staff; evaluates the work of the office and maintains rating of employees; develops and maintains public relations with the community. Complex professional employment work in the management of a large local state employment office. Requires four years progressively responsible experience in employment services at the local level with two years of administrative and supervisory experience.

## Software Specialist III

213028 16

Performs evaluations and makes technical recommendations regarding computer systems, equipment configurations and associated software; serves as team member to evaluate proposed equipment configurations and associated software; trains and directs lower level programmers and operators; provides inventory maintenance and modification of software systems including monitors, language translators, operating system control and accounting software, system utilities, and standard software packages; conducts performance analysis of monitors and operating systems to insure proper operation and efficient performance; provides development of software systems; provides documentation of software systems and programming and operational procedures; prepares test data; tests and debugs software systems; provides consultation to users of software systems. Professional work of considerable difficulty in the maintenance, development, support and implementation of computer operating systems and related software. Requires five years progressively responsible experience in computer software systems.

## County Welfare Director

188016 17

Administers and supervises the public welfare program in a county; interprets and carries out the policies and procedures set by the Department of Social and Rehabilitative Services and the County Welfare Board; interprets state policies to the County Board of Public Welfare and in compliance with state policies provides leadership to them for the development of local policies; presents recommendations relative to eligibility and extent of need to the county welfare board; provides all aspects of administration necessary to insure the effective conduct of the Child Welfare Program in the county; arranges regular conferences with the casework supervisor to evaluate casework processes in the county department; coordinates the activities of the county welfare department to effectively utilize the services of other agencies and interested groups; directs the preparation and maintenance of accurate records, estimates and reports required by the state; prepares estimates of financial needs for the county share of public welfare costs for use in preparation of the County Poor Fund budget and keeps informed of the fiscal aspects of the county welfare programs; has responsibility for the overall internal management of the county department of public welfare, including organization of activities, planning, control and coordination of work, evaluation of performance, staff development and related management activities; recruits and secures qualified staff and provides for their orientation and training and recommends appropriate personnel actions to the county boards. Complex and varied administrative

REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
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County Welfare Director (cont.)

duties in directing the work of a large county welfare department. Requires four years social work experience with two years in an administrative and supervisory capacity.

<u>Dentist</u>	<u>072002</u>	<u>17</u>
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Makes oral examination of patients; records number of teeth, position, condition, type, size, and relationship to each other; locates fillings; checks condition of gums; evaluates bone support for teeth; removes cavities from teeth; extracts teeth; prepares teeth for filling and inserts filling material; may construct orthodontic appliance such as dentures, bridgework, inlays, crowns, and jackets, prepares reports concerning dental work and dental health of patients. May supervise one to three persons. Professional dental work requiring a Doctor's degree from an accredited school of Dentistry and a valid Montana State license to practice dentistry.

<u>Pharmacist Inspector</u>	<u>074007</u>	<u>17</u>
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Inspects all establishments engaged in the sale of drugs including manufacturers, druggists, storekeepers, wholesalers, pharmacists, and interns; assists in the prosecution of violators of applicable laws; assists the Board of Pharmacy in supervising internships, reciprocity agreements, professional correspondence, and examinations. Administrative and professional duties in carrying out the directives of the State Board of Pharmacy. Requires five years experience and graduation from an accredited school of pharmacy.

<u>Law Enforcement Division Administrator (Fish &amp; Game)</u>	<u>379013</u>	<u>18</u>
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Plans comprehensive programs; initiates statewide programs of special investigation; directs and evaluates law enforcement programs; hires, assigns and evaluates duties of all personnel; directs the formulation and interpretation of division policy; reviews all regulations and other details for seasons and limits, and prepares recommended regulations for the commission; publicizes regulations through news media; prepares and administers budgets for division; keeps records and prepares various reports; coordinates issuing of equipment and supplies to field personnel; oversees department radio system. Complex professional, administrative and supervisory duties. Requires six years progressively responsible experience as a Fish and Game Warden and Warden Supervisor.

<u>Forestry Division Administrator</u>	<u>040002</u>	<u>18</u>
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Has overall administrative responsibility for the management of state owned forest land; with technical assistance from staff members, plans and directs all forest programs on state forest land and all statewide programs for the prevention and suppression of forest fires on state and private lands; develops policies relating to forestry management; administers programs of

# REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Forestry Division Administrator (cont.)</u>	reforestation and afforestation; initiates and directs programs to promote public interest in good forest management practices; directs administrative requirements of the division; acts as advisor to agencies that affect forest management. Complex administrative, supervisory and professional forestry work in the implementation of the state forestry management program. Requires six years of experience in forest management, five of which must be in an administrative and supervisory capacity.		
<u>Rehabilitative Services Division Administrator</u>	Performs administrative and professional duties in the overall administration of the Rehabilitative Services Division which serves the physically, mentally and psychologically handicapped of the state. Works under general guidance and direction. Requires five years experience directly related to vocational rehabilitation. Administrative and professional duties in the overall administration of the Rehabilitative Services Division which serves the physically, mentally and psychologically handicapped of the state. Works under general guidance and direction. Requires a Bachelor's degree in Rehabilitative Counseling or Vocational Guidance. Requires five years experience directly related to vocational rehabilitation.	169096	18
<u>Chief, Employment Service Bureau</u>	Plans, directs, and coordinates the function of the State Employment Offices within the State in accordance with state and federal laws and regulations; evaluates needs of various communities throughout the state for services and recommends the local office locations and needed services, promotes public understanding of employment service programs through correspondence and other media; has administrative responsibility for federal employment programs, such as WIN, CEP, MDT, JOBS. Consults with and advises immediate supervisor regarding policy matters, budget and personnel. Requires BA degree and six years increasingly responsible experience.	166036	18
<u>State Librarian</u>	Under general policy direction of the Montana State Library Commission, has administrative responsibility for library service to state government, inter-library loan and reference service and maintenance of the depository collection of Montana documents. Performs fiscal planning and budget preparation, assists other librarians within the State, advises the Commission on policy matters; plans, directs, and supervises work of the library staff and participates in activities of professional organizations. Requires a Master's degree in Library Science and four years library and administrative experience.	100005	18
<u>Personnel Division Administrator</u>	Supervises the development, implementation, and administration of policies and	166022	19

REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Personnel Division Administrator (cont.)</u>			
	procedures in the areas of classification, EEO, training, labor relations, recruitment, pay administration, and all other specific areas related to Public Personnel Administration; interprets statutes and makes recommendations to legislature for revisions and additions to laws affecting personnel management; acts as the representative for the State of Montana on all collective bargaining matters; advises the Collective Bargaining Policy Task Force on policy decisions; performs related work as required. Requires BA degree and six years progressively responsible experience in personnel management including labor relations.		
<u>Administrator, Maintenance Division - Highways</u>		<u>005029</u>	<u>19</u>
	Responsible for development, implementation, evaluation, and administering of laws, regulations and programs affecting the division for the department; develops and implements departmental policies and goals; supervises and evaluates personnel; analyzes budget expenditures and needs; coordinates the division's function with other agencies and private groups; establishes functional priorities and goals; may serve on committees or boards for the director; directs and supervises the statewide purchase of materials, supplies and equipment for highway maintenance; supervises activities related to the maintenance function. Administrative and supervisory work in coordinating statewide activities for the maintenance of the state highway system. Requires Bachelor's degree in Civil Engineering or a related field. Requires six years of progressively responsible supervisory and administrative experience in highway engineering and maintenance operations.		
<u>Chief, Construction Bureau</u>		<u>005004</u>	<u>19</u>
	Plans, supervises, coordinates, directs and reviews construction, policies and specifications; approves assignments; schedules work, contract changes, special studies and reports; develops and implements programs, policies and procedures necessary to administer the construction of state highway facilities; supervises the preparation of the budget and the purchase of materials and supplies; performs or supervises liaison with contractors, departmental personnel, officials, the public and others; supervises and evaluates the work of subordinates. Responsible for directing all activities for the actual construction of highways in coordination with the Federal Highway Administration. Requires a Bachelor's degree in Civil Engineering or a related field. Requires six years progressively responsible civil engineering work.		
<u>Deputy Director, Department of Fish &amp; Game</u>		<u>169099</u>	<u>20</u>
	Prepares budget and maintains contact with the Budget Bureau chief, Department of Administration officials and the proper legislative committees that are considering fish and game legislation; insures that the orders and directives of the Director and the Commissioner are adhered to and accomplished in accordance with the laws of the state; develops suitable work plans and		

# REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Deputy Director, Department of Fish &amp; Game (cont.)</u>	working projects for the divisions of the Department of Fish and Game. Complex administrative duties concerning the internal organization of the Department. Requires a Master's degree in Management. Requires six years administrative and supervisory experience in fish and game management.		
<u>Administrator, Workers' Compensation Division</u>	Administers State Insurance Fund; administers payment of medical and compensation benefits by private insurance carriers and self-insurance in state; administers enforcement of State Safety and Health Act and other related acts; administers settlement of disputed cases; administers liaison with counterpart federal officials, intra- and inter-departmental coordination, meetings with general public, attorneys, organized labor representatives, injured claimants and others relative to operations of agency. Performs complex administrative and quasi-judicial duties involving all aspects of Workers' Compensation and agency administration including budgeting, fiscal management, review of personnel actions, and legislative liaison relative to both appropriations and operational programs. Requires a Bachelor's degree in Public Administration or a related field and six years administrative experience.	<u>169130</u>	<u>20</u>
<u>Deputy Director, Department of Revenue</u>	Assists the Director in administering the statutory responsibility and obligations of the Department; acts for the Director in planning, direction and coordination of programs and activities, including Corporation Tax, Property Tax, Income Tax, Liquor Sales, Motor Fuels Tax, Miscellaneous Tax, Legal and Investigative Services, Audit and Accounting, Data Processing, Research, and Administrative Services functions; assists the Director in the determination and implementation of policies and procedures; reviews and evaluates proposed legislation as it relates to or is affected by the Department; reviews and evaluates effectiveness of departmental programs and makes recommendations for changes; reviews and evaluates budget development and monitors approved program budgets; represents the Department at various meetings with other state agencies and outside groups; serves as acting Director in the absence of the Director. Requires a Master's degree in Accounting, Business or Public Administration or a related field and six years progressively responsible administrative or supervisory experience affording thorough knowledge of Department of Revenue programs and organizations.	<u>169105</u>	<u>20</u>
<u>Administrator, Investments Division</u>	Buys and sells securities; invests state monies; analyzes security markets; reviews portfolios; maintains investment records; prepares reports. Exercises supervision over five to nine persons. Complex professional work requiring a BA degree in Business Administration, Economics, or a related field and eight years of increasingly responsible experience in the investment field.	<u>020001</u>	<u>21</u>

# REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Administrator, Engineering Division - Highways</u>		<u>005002</u>	<u>21</u>
Administers and coordinates functions and programs under his control; does long range planning and makes recommendations on policies and goals to be achieved; studies operations and recommends changes in organization and staffing; analyzes budget expenditures and needs; approves plans; makes final inspection of contract work; reviews reports and studies; holds and attends various meetings; prepares comprehensive professional reports; coordinates the division's function with other agencies and private groups; performs related work as required. Administrative and supervisory duties in directing the Engineering Division for the preconstruction and construction of state highways. Requires a Bachelor's degree in Civil Engineering or a related field. Requires six years progressively responsible administrative and supervisory experience in construction and maintenance civil engineering work.			
<u>Chief, Dental Health Bureau</u>		<u>072001</u>	<u>21</u>
Responsible for development, implementation, interpretation, evaluation and administering of laws, regulations and programs of the bureau; develops, plans, and implements procedures and training programs; carries out departmental policies and goals; supervises and evaluates personnel; assists in preparation of legislation affecting the bureau; analyzes budget expenditures and needs; coordinates the bureau's function with other agencies and private groups; establishes functional priorities and goals; may serve on committees or boards for the Director. Administrative, supervisory and professional duties relative to the delivery of dental health services. Requires graduation from a school of Dental Surgery and a Master's degree in Public Health. Requires three years progressively responsible administrative and dental health experience.			
<u>Administrator, Mental Health &amp; Mental Retardation Division</u>		<u>169046</u>	<u>22</u>
Establishes, organizes and administers a comprehensive program for the care, treatment, and education of persons committed or admitted to mental health or mental retardation institutional or community facilities; establishes and maintains medical, psychiatric, nursing, psychology and therapeutic standards for related facilities, their patients and employees; directs, advises and consults with superintendents and division staff concerning the various programs and activities of the division; represents the division and interprets its programs to the public, courts, professional organizations and other states; supervises and evaluates the work of superintendents, division and subordinate staff. Requires Doctor of Medicine degree of PHD in a mental health discipline and completion of requirements for professional certification or licensing. Requires five years progressively responsible administrative supervisory experience in mental health and/or mental retardation.			

REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
<u>Psychiatrist II</u>		<u>070002</u>	<u>22</u>
Diagnoses and treats patients with mental, emotional and/or physical problems; makes daily rounds examining patients, outlining treatment and giving appropriate instructions to nurses and attendants; admits and examines new patients; attends diagnostic clinics; and alcoholic clinics; evaluates court ordered commitments and corresponding reports; performs the services of a psychiatric member of a team of a mental hygiene clinic or center; may supervise a small mental hygiene clinic. Requires Doctor of Medicine degree and successful completion of psychiatric residency. Requires two years experience as a practicing psychiatrist.			
<u>Physician III</u>		<u>070009</u>	<u>23</u>
Directs and supervises medical and surgical services in an institution or a staff of consulting physicians and dentists in specialized statewide programs and assists in development of medical care budget; interprets federal regulations and their application to statewide medical programs; maintains records and progress evaluation reports. Professional medical and surgical work and moderately complex administrative work. Requires license to practice medicine and surgery in the state of Montana and four years of experience in practice of medicine.			
<u>Administrator, Corrections Division</u>		<u>372013</u>	<u>23</u>
Administers, plans and organizes a statewide corrections division including community services programs and institutional programs. Coordinates the activities of correctional facilities with probation and parole activities. Establishes, organizes, and administers programming for the custody, care, treatment, education and rehabilitation of adult and youth offenders. Advises and consults with Superintendents and other corrections personnel regarding all aspects of custody and rehabilitative programming. Reports to the Director of Department of Institutions all unusual incidents. Makes recommendations to the Director concerning remedial processes that need to occur within the Division and its components. Represents the Division and interprets its programs to the public, to various agencies, courts, and other entities. Administrative, supervisory and professional work. Requires a Master's degree in the behavioral sciences or a related field. Requires five years progressively responsible administrative and supervisory experience in correctional programs.			
<u>Psychiatrist IV</u>		<u>070004</u>	<u>24</u>
Supervises and participates in treatment of mentally ill; directs psychiatric treatment program of unit or section. Supervises, trains, and evaluates staff; coordinates work of related programs; conducts or participates in meetings on clinical and administrative policy, research programs, and treatment techniques; examines, diagnoses and prescribed treatment, examines			



REGIONAL SURVEY KEY CLASS DESCRIPTIONS (cont.)

<u>TITLE</u>	<u>DESCRIPTION</u>	<u>CLASS CODE</u>	<u>GRADE</u>
Psychiatrist IV (cont.)	and evaluates patients for admission or discharge; prepares reports and correspondence on treatment programs, hospital policy, and patient progress. Exercises supervision over five or more persons. Requires valid license to practice medicine and surgery in the state of Montana, certification by American Board of Psychiatry and Neurology, and four years of progressive experience in the psychiatric field.		
Administrator, Health Services Division	Responsible for development, implementation, interpretation, evaluation and administration of laws, regulations and programs of the division; develops, plans, and implements procedures and training programs; carries out department policies and goals; supervises personnel in the division and assists Director in the evaluation of health related staff in the department; assists in the preparation of legislation affecting divisions and the department; represents the division in testimony before the legislature and represents the department when assigned by the Director; analyzes budget expenditures and needs for the division; coordinates the division functions with other agencies and private groups; coordinates department's services with local health departments and acts as advocate for local health departments; establishes functional priorities and goals; acts for the Director in any area assigned; may serve on committees for the Director. Administrative, supervisory and professional duties in directing health services activities for the Department of Health and Environmental Sciences. Requires Doctor of Medicine degree with completion of approved residency and a Master's degree in Public Health. Requires five years progressively responsible experience in public health administration and in preventive health services.	070016	24
Superintendent, Institution V	Administers and directs the total operation of a state institution for the treatment and rehabilitation of the mentally ill. Supervises a staff of 625 to 750 employees. Professional administrative work requiring psychiatric licensure and five years administrative experience.	187025	25



APPENDIX A

Consultant's Report  
on the  
In-State Salary Survey



CONSULTANT'S REPORT ON THE MONTANA  
WAGE AND SALARY SURVEY  
1976

Prepared for  
Montana Department of Administration  
Personnel Division

by  
Randle V. White  
Bureau of Business and Economic Research  
School of Business Administration  
University of Montana  
Missoula, Montana

November 1976



## INTRODUCTION

The Bureau of Business and Economic Research, University of Montana, has served as a consultant to the Personnel Division, Department of Administration, in connection with an in-state wage and salary survey conducted by the Division during 1976. The objective of the survey was to estimate the range of wage rates and the statewide average wage rate paid by business and local governments for selected occupations (key classes) common in state government.

The overall responsibility for the survey lay with the Personnel Division, Department of Administration. The services provided by the Bureau of Business and Economic Research (BBER) included designing the statistical sample, training Personnel Division staff members as interviewers, and compiling the resulting survey data into summary reports. This report will describe these and other procedures followed in the survey.

## SURVEY METHODOLOGY

### Selection of Key Classes

The Personnel Division selected 37 key classes to be surveyed. Criteria for selection were: 1) the occupations were commonly found in state government departments; 2) sufficient numbers of employees could be expected to be found in the private sector or local government; 3) the state's job descriptions would apply to both the state government and private firms. Table 1 presents the 37 key classes, the series number (used to identify the key class) and the grade level of each class.

Table 1

In-State Survey Key Classes for the  
Montana Wage and Salary Survey  
1976

<u>Job Title</u>	<u>Series</u>	<u>Grade</u>
File Clerk I	206001	G-3
Clerk, General Office I	219004	G-4
Clerk Typist I	209001	G-4
Keypunch Operator I	213001	G-4
Clerk, Sales I	290001	G-5
Custodial Worker I	382001	G-5
Switchboard Operator I	235001	G-5
Cashier I	211001	G-6
Clerk Stenographer II	202002	G-6
Accounting Clerk II	219002	G-7
Cook I	315001	G-7
Equipment Operator I	919004	G-7
Nurses Aide I	355005	G-7
Warehouse Worker II	922002	G-7
Draftsman II	017005	G-8
Offset Duplicating Machine Operator II	207003	G-8
Clerk Supervisor II	219015	G-9
Laboratory Technician I	029004	G-9
Maintenance Worker II	899002	G-9
Equipment Mechanic II	620002	G-10
Licensed Practical Nurse I	079001	G-10
Maintenance Painter	840001	G-10
Police Patrol Officer II	375015	G-10
Stationary Engineer II	950002	G-10
Store Manager III	185005	G-10
Accountant I	160013	G-11
Machinist	600001	G-11
Maintenance Carpenter	860001	G-11
Maintenance Electrician	829001	G-11
Police Sergeant	375007	G-11
Registered Nurse	075013	G-11
Civil Engineer I	005047	G-12
Computer Programmer II	020026	G-12
Professional Nurse I	075001	G-12
Purchasing Agent III	162003	G-12
Food Service Manager II	319002	G-13
Lawyer I	110001	G-13



## Sample Design

A multi-stage stratified sample was used to obtain wage and salary rates paid by private industry and local government units within Montana. The sample elements were defined to be Montana workers in occupations (key classes) covered by the survey. The size of the population of sample elements was unknown and not available from existing sources; that is, we did not know how many people were employed in the various occupations. Therefore, it was necessary to assume that the geographic distribution of the sample elements follows the distribution of total employment in the state. In other words, it appeared safe to say that the chance of finding key class positions would be much higher in areas of high employment concentration and, therefore, such areas should be well represented in the sample. Also, it was desirable to limit the geographical area to be covered in the survey because of the limited number of interviewers available to the Personnel Division. Private firms and local governments were used as sampling units to locate concentrations of employees.

Stage I. Two strata were established within the first stage of the sample design. Stratum I consisted of Montana's 56 counties. Stratum II was created to accommodate sampling of the multi-county firms in Montana (firms operating in more than one county who report their employment as a state total).

Within Stratum I, Montana's 56 counties were ranked in order according to state covered employment (table 2). Covered employment includes all workers covered by unemployment insurance. Fifteen counties were then selected by a random sampling method called Probability Proportional to Size (PPS) sampling. This method gives those counties representing a

Table 2  
Covered Employment by County  
1974

<u>County</u>	<u>Covered Employment</u>	<u>County</u>	<u>Covered Employment</u>
S-Yellowstone	25,731	Mineral	605
S-Cascade	16,804	Phillips	584
S-Missoula	15,144	Madison	563
S-Silver Bow	10,884	Teton	563
S-Flathead	9,397	Chouteau	534
S-Lewis and Clark	8,390	Stillwater	513
S-Gallatin	7,276	Sweet Grass	456
Lincoln	3,447	Broadwater	417
S-Deer Lodge	3,231	Granite	385
S-Hill	2,999	Jefferson	368
Valley	2,533	McCone	332
S-Custer	2,469	Daniels	319
Dawson	2,321	Powder River	266
S-Ravalli	2,226	Meagher	255
S-Fergus	2,067	Wheatland	209
Glacier	2,029	Liberty	194
Lake	1,977	Prairie	147
Park	1,961	Garfield	122
S-Richland	1,932	Judith Basin	114
Rosebud	1,455	Wibaux	112
Sanders	1,434	Treasure	84
S-Roosevelt	1,399	Carter	80
Big Horn	1,343	Golden Valley	32
S-Toole	1,159	Petroleum	18
Beaverhead	1,133	Subtotal	143,030
Powell	888	Multi-county	12,796
Pondera	736		
Blaine	725		
Sheridan	724	TOTAL	155,826
Carbon	697		
Fallon	627		
Musselshell	620		

Notes: Covered employment refers to all employment covered by Montana's unemployment insurance laws. Figures are twelve month averages. S denotes counties drawn in the sample.

Source: Montana Department of Labor and Industry, Employment Security Division, unpublished data, (Helena, Montana).

much larger proportion of covered employment a much higher probability of being sampled than a county which represents a small percentage of covered employment. The fifteen sample counties selected by PPS sampling are denoted by an "S" in table 2. If we had used simple random sampling to select the counties, giving each county an equal chance of being selected, it is highly probable that a sample of fifteen counties would have left us with a small percentage of total covered employment in the sample (i.e., many small counties would have been represented).

There was not enough information available concerning the population of multi-county firms in Stratum II to allow for probability sampling. Therefore we used a judgement sample of the largest firms in that category, with the concurrence of the Personnel Division.

Stage 2. Private firms and governmental units were substratified within Stratum I (counties). Private firms were separated into three substrata on the basis of employment size and a fourth substratum was defined for local governmental units.

Through the cooperation of the Montana Employment Security Division (ESD), the BBER was allowed special access to ESD files to obtain size and location data on Montana business firms reporting to the state for unemployment insurance purposes. Firms are classified by the ESD as to the number of employees with the following set of codes:

<u>Code</u>	<u>Number of Employees per Reporting Firm</u>
1	0-3
2	4-9
3	10-19
4	20-49
5	50-99
6	100-249
7	250-499
8	500-999
9	1,000 and over

Code 1, 2, and 3 firms were omitted from the population list as being too small to produce good data and too expensive (per unit of information) to sample. Employees of small firms generally have varied duties which do not closely coincide with the specific descriptions written for key classes in wage surveys; therefore, it is difficult to identify employees meeting the key class requirements. The effect on the survey results from omitting the small firms is negligible; even though there are many small firms, they represent a small percentage of the total employment.

The 1,067 private firms in the sample counties employing twenty or more persons (excluding multi-county firms) were sorted by size of firm code and stratified in the following manner:

<u>Substratum</u>	<u>Size of Firm Code</u>	<u>Number of Firms</u>	<u>Number of Firms in Original Sample</u>	<u>Number of Firms in Supplementary Samples</u>
A	9	2	2	--
	8	9	9	--
	7	18	18	--
B	6	71	50	35
	5	211		
C	4	<u>756</u>	<u>76</u>	<u>65</u>
		1,067	155	100

To select the firms for the original sample, disproportionate sampling rates were set at 100 percent for Substratum A, approximately 18 percent for Substratum B and approximately 10 percent for Substratum C. Therefore, the large firms in Substratum A were sampled with certainty and lower strata were sampled at successively lower selection rates. This scheme of disproportionate sampling rates is supported by two reasons: higher quality data and more economical sampling. It was felt that the large firms would produce better information relative to this survey for the following reasons: larger

Table 3  
Local Governmental Units Selected  
for Montana Wage and Salary Survey  
1976

<u>County</u>	<u>City or Town</u>
Cascade	Great Falls
Custer	Miles City
Deer Lodge	Anaconda
Fergus	Lewistown
Flathead	Kalispell
Gallatin	Bozeman
Hill	Havre
Lewis and Clark	Helena
Missoula	Missoula
Ravalli	Hamilton
Richland	Sidney
Roosevelt	Wolf Point
Silver Bow	Butte
Toole	Shelby
Yellowstone	Billings

firms have employees with more precisely defined job descriptions and duties; large firms are recruiting in larger areas more comparable to the state government's recruiting area; large firms are more likely to have negotiated labor contracts; and large firms are usually trend setters in wages and fringe benefits. Large firms employ more workers per location on the average than smaller firms; therefore, more information was generated by interviewing a large firm, lowering the cost per unit of information.

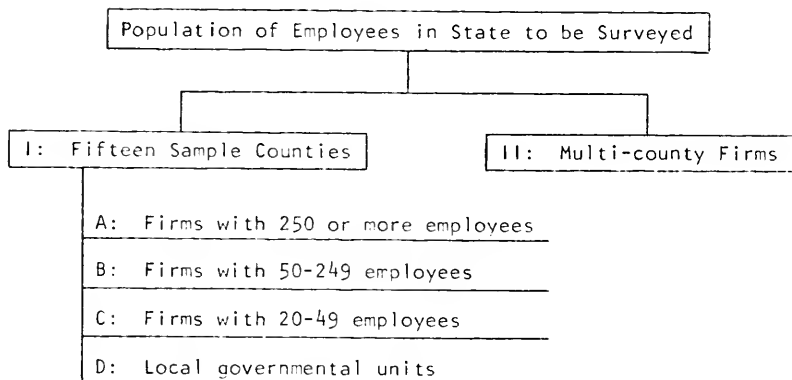
Random sampling procedures were used to select the firms from Substratum B (size codes 5 and 6 jointly) and Substratum C. Because of a low participation rate among the selected firms (to be discussed later), two supplementary samples were drawn randomly from Substrata B and C.

The county government and largest city government of each sample county were included in Substratum D and sampled with certainty. Table 3 lists the fifteen county governments and fifteen city governments.

Sample Weighting. Figure 1 depicts the two-stage structure of the sample design. Sample information from the four substrata of Stratum I for each key class was weighted according to the substratum's proportion of total state covered employment in the private sector and local governments. In other words, the weighting factors for Substrata A, B, C and D were directly proportional to each of the substrata's share of total state covered employment for Stratum I and the four factors had to add to 1.0. The estimates derived by key class for Stratum I and the data for the multi-county firms in Stratum II were then weighted according to the proportion of total state covered employment each represented to arrive at estimates for the state as a whole.

Figure 1  
Design and Size of In-State Survey Sample  
Montana Wage and Salary Survey  
1976

Sample Design:



Sample Size:

	<u>Original Sample</u>	<u>Supplemental Samples</u>	<u>Total</u>
Stratum I			
Substratum A (firms)	29	--	29
Substratum B (firms)	50	35	85
Substratum C (firms)	76	65	141
Substratum D (governmental units)	30	--	30
Stratum II (firms)	<u>15</u>	<u>--</u>	<u>15</u>
Total	200	100	300

By stratifying the population of employees in Stage 1, the geographical area to be covered by the interviewers was reduced and the survey centered on the larger labor market areas. Stage 2 stratification focused the sample on large firms and major governmental units.

### Field Survey

On July 15, 1976, the BBER provided the Personnel Division with a listing of 200 firms and governmental units to interview in the original sample of the survey. The Personnel Division mailed letters to all of the selected firms and governments requesting their cooperation.

The BBER conducted an interviewer training session on July 28, 1976, to familiarize Personnel Division staff members with the proper interview procedures and the data collection forms to be used during the survey. Briefly, the interviewer's instructions were to contact the personnel manager or other knowledgeable person in the firm, explain the purpose of the visit, and, with the manager's assistance, complete a data collection form (figure 2) for each key class in which any of the firm's employees could be identified. Each interviewer carried detailed job descriptions for each key class which could be compared with the employee's actual job duties, responsibilities and education.

The interviewers started the field survey the first week of August and completed the interviews in mid-October.

### Survey Response

Initial employer response to the survey was less than enthusiastic. Only about 50 percent of the original sample firms indicated they would participate in the survey in response to the request letter and a followup telephone call from the Personnel Division. Therefore, two supplemental samples totaling 100 firms were drawn and added to the original



WAGE AND SALARY DATA  
COLLECTION FORMDATE  
COMPLET

NAME OF ANALYST

NAME OF FIRM

STATE'S JOB CLASS	Grade	Grade
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[illegible]

FILM'S	JOB	TITLE
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
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95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

NAME OF GOVERNMENT AGENCY

CityCountyState

City	Population
Atlanta	420,000
Baltimore	320,000
Boston	600,000
Chicago	2,700,000
Cincinnati	290,000
Cleveland	490,000
Denver	290,000
Detroit	900,000
Houston	1,100,000
Los Angeles	2,800,000
Memphis	260,000
Minneapolis	360,000
Miami	360,000
Montreal	290,000
New York	12,000,000
Oakland	170,000
Philadelphia	1,900,000
Pittsburgh	360,000
Portland	510,000
San Francisco	800,000
Seattle	560,000
St. Louis	450,000
St. Paul	260,000
Tampa	260,000
Washington	560,000
Wichita	170,000
Winnipeg	200,000
Yokohama	3,200,000

FIRM CODE

n	CO	
110		

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CLASS			
			12-17

Grade			19 20
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1=Yes  
2=No

Firm Employ.				
2A-27				

AMOUNT	Cents	

Notes

Costs	
-------	--

Hiring  
Rate

1

--	--

Maximum  
Rate

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--	--

No. of employees	Percentage of total employees
1-9	10.8%
10-49	27.6%
50-99	18.2%
100-499	23.4%
500 or more	19.9%

49 55

▲

[illegible][illegible]

6263						
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65						
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6768						
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sample to insure that a reasonable number of employee observations could be made. The overall participation rate of the survey totaled 51 percent of the sample. This compared to 81 percent of the sample which participated in the 1974 Montana Wage and Salary Survey. This drop in participation may reflect a negative attitude toward the state wage plan on the part of Montana's businessmen or just a general apathy toward state government in general.

Table 4 contains a summary of the in-state survey responses by stratum. Of the 300 firms and local governmental units in the sample, 154, or 51 percent agreed to participate. However, in 9 of the firms, the interviewer was unable to identify any key classes. Therefore, 145 sampling units provided wage data for the survey.

#### Tabulation of In-State Survey Data

Data from the survey data collection forms were keypunched into computer cards and verified for accuracy. The deck of data cards was sorted by firm code, checked for completeness and then run through a program written by BBER personnel to estimate the average size of firm in each substratum and to compute the substrata weights, based on the sample data.<sup>1</sup>

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<sup>1</sup> The size of the population of employees in each of the four substrata is not available from any source. therefore, it was necessary to estimate the number of employees in each substratum by multiplying the average size of firms by the number of firms in the substratum sampling frame substrata weights were then computed by dividing the substrata employment estimate by the total of the estimates for the major stratum.

$$W_A = \frac{E_A}{E_A + E_B + E_C + E_D} \quad , \quad , \quad , \quad W_D = \frac{E_D}{E_A + E_B + E_C + E_D}$$

Where  $W_A$  is the weighting factor for the substratum A and  $E_A$  is the estimate of employment for that substratum.

Table 4

Summary of Responses for In-State Firms in  
Montana Wage and Salary Survey  
1976

<u>Stratum</u>	<u>Firms in Sample (Number)</u>	<u>Nonresponses (Number)</u>	<u>Firms Responding (Number)</u>	<u>Firms without Key Classes (Number)</u>	<u>Firms with Key Classes (Number)</u>
Stratum I	285	134	151	9	142
Substratum A	29	6	23	2	21
Substratum B	85	43	42	1	41
Substratum C	141	82	59	6	53
Substratum D	30	3	27	--	27
Stratum II	15	12	3	--	3
TOTAL	300	146	154	9	145

Note: The term "firms" includes governmental units.

The weighting factors for Strata I and II were computed by dividing the total employment which each stratum represented by the total employment for the state (from table 2).

The resulting weighting factors are as follows:

	<u>Stage 2 factors</u>	<u>Stage 1 factors</u>
Stratum I		.91788
Substratum A	.29363	
Substratum B	.36782	
Substratum C	.26958	
Substratum D	.06897	
Stratum II		.08212

The data cards were then processed by a second computer program to produce data summary reports for each key class and each grade level in the in-state survey. Appendix A contains the computer produced reports in order of grade level.

Briefly, the second program read the data on employment, wages and salaries, adjusted to a common basis of a 40-hour work week computed the desired statistics and printed an output report. Input data had to fall into one of the substrata of Stratum I or into Stratum II, depending on where the data was collected. Using the substrata weighting factors derived above, the program computed weighted averages of the substrata statistics to estimate averages for Stratum I. Again using the major strata weighting factors the program computed a weighted average of the major Strata I and II to estimate a state average based on the sample data. The program also computed the number of forms and employees identified in each strata and displayed the breakdown by industry, size of firm and collective bargaining coverage.

#### Interpretation of In-State Survey Reports

Referring to the summary report for Key punch Operator I, G-4, we see,

for example, that 10 employees were identified in six different sample firms in Substratum B. The statistics  $Q_1$  and  $Q_3$  form the interquartile range. That is, approximately 25 percent of the employees in the substratum had monthly wages of less than \$552 and approximately 25 percent had wages of more than \$607. The median of \$563 marks the middle value; approximately 50 percent of the keypunch operators identified were paid at higher rates and 50 percent received lower wages.<sup>2</sup>

Each firm was asked to indicate the hiring rate and maximum rate it pays for this classification. In Substratum B the average, weighted by the number of employees, are \$466 and \$641 for the hiring and maximum rates, respectively.

The weighted mean of \$574 is the arithmetic average of the actual wages reported for the 10 employees in this substratum. The variance of the mean (the squared standard error of the mean) is a measure of the variability of the actual data gathered in the substratum. We can use the square root of the variance in estimating confidence intervals around the mean of the observations in a particular stratum. For example, we can estimate the confidence interval, at the 95 percent level, around the mean of the observations in Substratum B by computing  $\$574 \pm 1.96 \sqrt{88}$ . As a result, we can say, with 95 percent confidence that the average wage for Keypunch Operator I in firms with 50 to 249 employees is in the range from

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<sup>2</sup>The formula for determining the median employee in  $n/2 + 1/2$ , counting from the lowest value, where  $n$  is the number of employees. If  $n$  is equal, then the median is the mean of the two middle values. The formulas for determining the order numbers of the employees at  $Q_1$  and  $Q_3$  are  $n/4 + 1/2$  and  $3n/4 + 1/2$ , respectively, counting from the lowest value. Fractional order numbers are interpolated between neighboring employees in the ordered list.

\$556 to \$592 (though the obtained sample mean of \$574 is the best available point estimate of the mean).<sup>3</sup>

Estimates of the interquartile range, median, hiring and maximum rates and mean for Stratum I are made by taking a weighted average of the four substrata using the substrata weights developed earlier. However, in this particular example, there are no data reported in Substratum C, so the computer was programmed to recompute the weights for Substrata A, B and D in proportion to the employment population they represent and so their weighting factors add to 1.0.<sup>4</sup> Estimates of the statistics for the state are computed by taking a weighted average of the two major strata using the weights developed earlier. In this case there are no observations in Stratum II, so the computer recomputed a weighting factor of 1.0 for Stratum I. Estimates of the variance for Stratum I and the state are also weighted averages of their components but the weighting factors are squared before the computation on the weighted averages.<sup>5</sup>

Looking now at the weighted mean for the state we could again compute a confidence interval around that estimate at the 95 percent confidence level

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<sup>3</sup>More precisely, the variance is the mean squared deviation of the observations around the mean of the observations. The standard deviation of the sampling distribution, often called the standard error, is the square root of the variance of the sampling distribution. The formula for the variance of the sample mean of a substratum in a stratified sample is

$$\text{var}(\bar{y}_{h0}) = \left( \left( \sum_i y_{hi}^2 \right) - \frac{(\sum y_h)^2}{n_h} \right) / (n_h - 1) / n_h$$

A finite population correction factor  $(1-n/N)$  is usually applied to the variance and in effect reduces its magnitude where a high percentage of the population is sampled. However, in this survey,  $N$  is not known for each key class and grade level, so the finite population correction factor has been omitted. The omission, of course, produces larger variances and hence more conservative estimates. See Leslie Kish, Survey Sampling (New York: John Wiley & Sons, Inc., 1965, chapters 1 and 3).

<sup>4</sup>The program automatically recomputes the weights if any substrata and/or major strata does not have any reported observations.

<sup>5</sup>The exact formula is  $\text{var}(\bar{y}_w) = \sum w_h^2 \text{var}(\bar{y}_h)$  where  $w_h$  is the weight for the stratum (see Kish, p. 78).

by computing  $\$573 \pm 1.96 \sqrt{70}$ . Thus, we could say with 95 percent confidence that the mean wage for Key punch Operator I in the state is in the range of \$556 to \$589. However, our best estimate of the mean is still \$573.

The median can be interpreted as the central tendency for wage rates in the key class (or grade) on the basis of simple order of wage size, i.e., without weighting by actual wage intervals. The interquartile range cuts off the extreme observations at both ends of the wage spectrum and, as with the variance of the mean, gives us another measure of the variability of the data. In fact, a quartile deviation ( $\frac{Q_3 - Q_1}{2}$ ) can be computed and used for comparisons with other strata or key classes. The lower the quartile deviation, the lower the dispersion of the observations around the median.

In a symmetric distribution the mean and the median have the same value. However, in a skewed distribution the mean is pulled out in the direction of the extreme values and the median, which is affected by the order of values rather than the magnitude of the values, tends to fall behind the mean. A comparison of the mean for a key class with its median will indicate the degree of skewness (size of the difference) and also the direction of the skewness. If the mean is greater than the median, the skewness is to the right, or positive, indicating that there may be some very high values pulling the mean up. Conversely, if the median is greater than the mean, the skewness is negative, and there may be some very low values affecting the mean.

#### COMMENTS ON SURVEY RESULTS

The in-state survey did not identify any employees in one of the 37 key classes: Computer Programmer II, G-12. The reliability of the data in the remaining key classes varies, of course, because of the natural

variability of wages in a given occupation and because of differences in the number of observations per key class. We feel the following key classes, provide better information for benchmark positions than the others, because they involve substantial numbers of employee observations and low statistical variances:<sup>6</sup>

<u>Key Classes</u>	<u>Series</u>	<u>Grade</u>
Clerk, General Office I	219004	G-4
Clerk, Sales I	290001	G-5
Custodial Worker I	382001	G-5
Clerk Stenographer II	202002	G-6
Nurses Aide I	355005	G-7
Equipment Mechanic II	620002	G-10
Licensed Practical Nurse I	079001	G-10
Police Patrol Officer II	375015	G-10
Stationary Engineer II	950002	G-10
Machinist	600001	G-11
Maintenance Electrician	829001	G-11
Registered Nurse	075013	G-11
Professional Nurse I	075001	G-12

When the key classes were compared with one another at their respective grade levels, several key classes deviated substantially from the grade wage pattern. The reasons for the deviation may be either that the estimate may not be accurate because of high variability in the data or too few observations, or that the key class itself has been classified at the wrong grade level in terms of the labor market. The following key classes were identified as deviating substantially from their grade level and warranting review.

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<sup>6</sup> The variances for the key classes found in hospitals, particularly Nurses Aide I, Licensed Practical Nurse I, Registered Nurse, and Professional Nurse I are lower because several hospitals provided only average wages for their employees rather than the array of actual rates. However, the large number of observations supports the reliability of the mean.



<u>Key Class</u>	<u>Series</u>	<u>Grade</u>	<u>Deviation</u>
Cook I	315001	G-7	Below
Equipment Operator I	919004	G-7	Above
*Nurses Aide I	355005	G-7	Below
Warehouse Worker II	922002	G-7	Above
*Licensed Practical Nurse I	079001	G-10	Below
*Stationary Engineer II	950002	G-10	Above
*Machinist	600001	G-11	Above
*Maintenance Electrician	829001	G-11	Above
*Registered Nurse	075013	G-11	Below
Civil Engineer I	005047	G-12	Above
Purchasing Agent III	162003	G-12	Above

The key classes marked with an asterisk on the above list were also identified earlier as providing statistically reliable information for benchmark positions. It is apparent from the survey that the labor market values these occupations differently than the state's classification system.

General information about employee fringe benefits was requested from the firms and local governments in the in-state survey. The wide variation in type of fringe benefits and the brevity of the information received made it impossible to arrive at an overall cost or percentage for each firm. Rather, the general characteristics of the firms' fringe benefits were tabulated and presented in tables 5 and 6. Table 5 summarizes the benefits received by administrative, clerical, and professional employees. Table 6 summarizes the benefits of skilled and semi-skilled laborers and craftsmen.

Table 5

Summary of Fringe Benefits for Administrative,  
Clerical, and Professional Employees  
as Reported in the  
Montana Wage and Salary Survey  
1976

<u>Type of Benefit</u>	<u>Number of Firms Offering Benefits</u>	<u>Number of Firms Reporting Amount</u>	<u>Average Benefit Reported</u>	<u>Range of Benefit Reported</u>
Annual leave	122	122	11.3 days/year	10 to 21 days/year
Sick leave	108	78	10.7 days/year	5 to 30 days/year
Emergency leave	85	57	7.2 days/year	1 to 30 days/year
Paid holidays	110	111	8.3 days/year	6 to 11 days/year
Jury duty	35	20 15	Paid salary in addition to fee Paid difference of salary less fee	
Health insurance	113	78	\$20/month	\$4 to \$95/month
Life insurance	78	41	\$6,000	\$1,000 to \$25,000
Retirement and pension	92		Not compiled <sup>a</sup>	Not compiled <sup>a</sup>
Total value of fringe benefits		18 3		10% to 40% of salary \$0.50 to \$1.20/hour

Note: The term "firms" includes governmental units.

<sup>a</sup> Limited data are available, but due to the considerable variety of programs reported and the lack of detailed information, it was not possible to compile the data in such a way as to develop a reasonable average and range of benefits.

Table 6

Summary of Fringe Benefits  
of  
Skilled and Semi-skilled Laborers and Craftsmen  
1976

Type of Benefit	Number of Firms Offering Benefits	Number of Firms Reporting Amount	Average Benefit Reported	Range of Benefit Reported
Annual leave	108	107	11.5 days/year	5 to 16 days/year
Sick leave	89	70	10.7 days/year	3 to 20 days/year
Emergency leave	73	58	6.1 days/year	1 to 30 days/year
Paid holidays	96	96	8.6 days/year	3 to 13 days/year
Jury duty	30	10 17	Paid salary in addition to fee Paid difference of salary less fee	
Health insurance	98	71	\$29/month	\$4 to \$87/month
Life insurance	69	35	\$6,600	\$1,000 to \$25,000
Retirement and pensions	89		Not compiled <sup>a</sup>	Not compiled <sup>a</sup>
Total value of fringe benefits		10 5		13% to 48% of salary \$0.50 to \$1.35/hour

Note: The term "firms" includes governmental units.

<sup>a</sup>Limited data are available, but due to the considerable variety of programs reported and the lack of detailed information, it was not possible to compile the data in such a way as to develop a reasonable average and range of benefits.





